

FIG. 5

FIG. 6

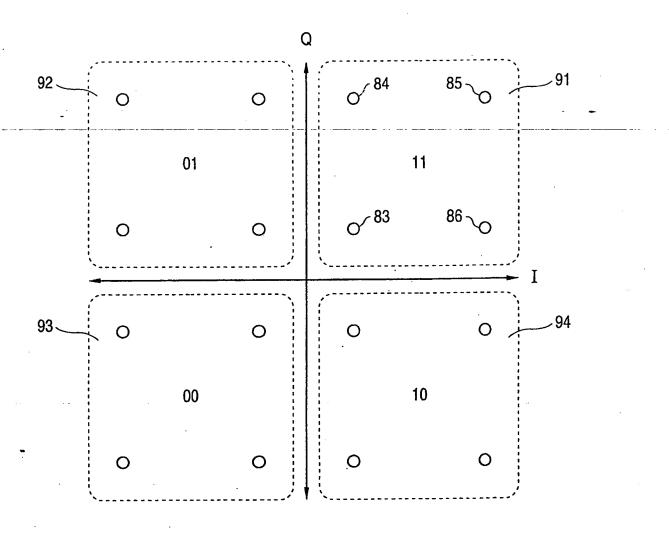


FIG. 7

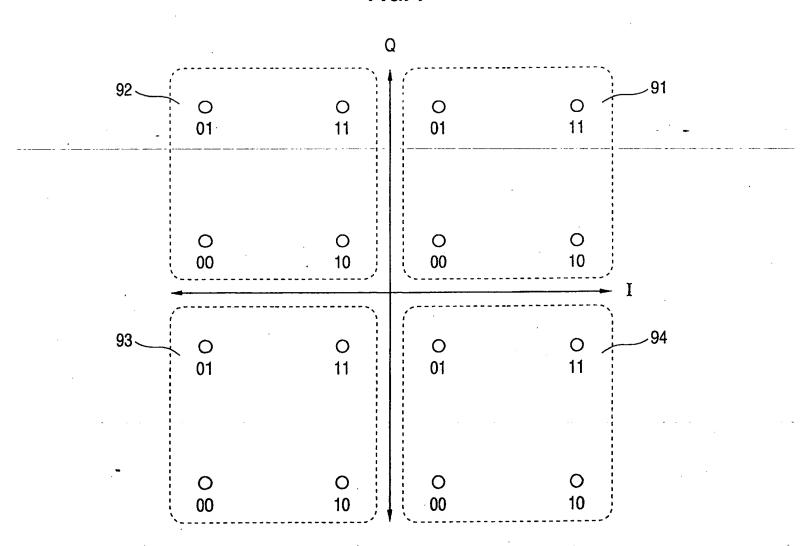
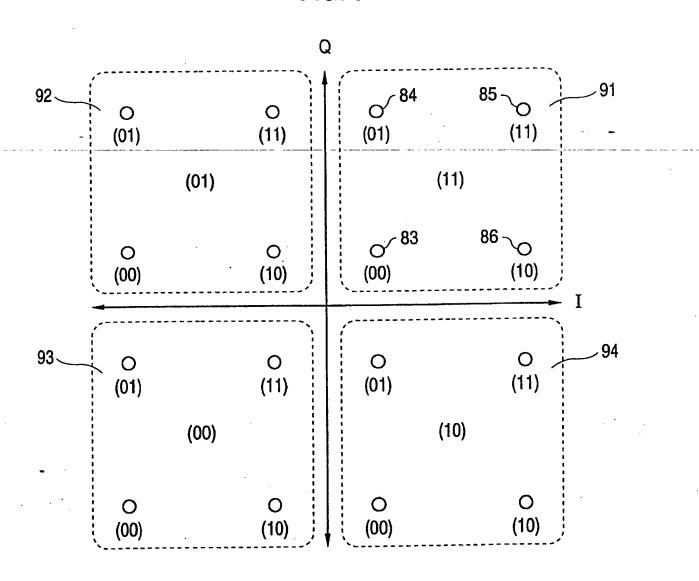


FIG. 8



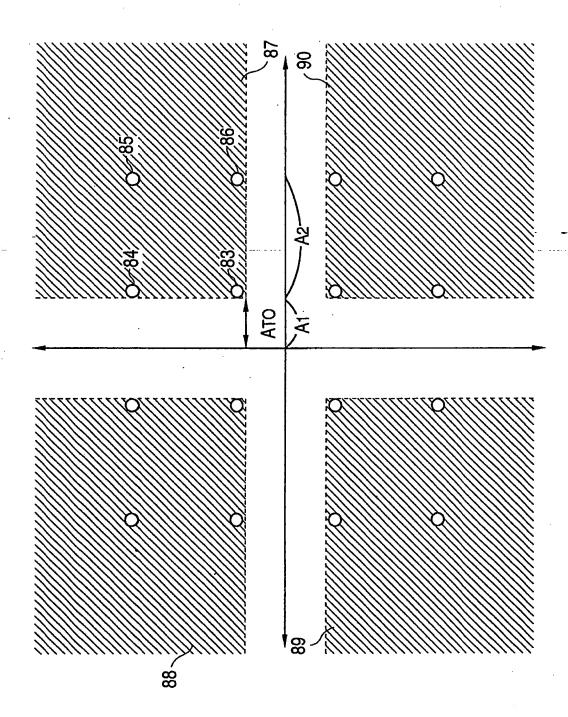
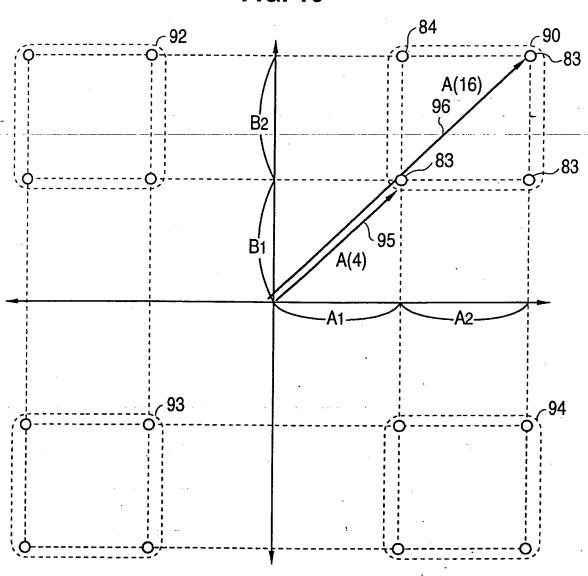


FIG. 10



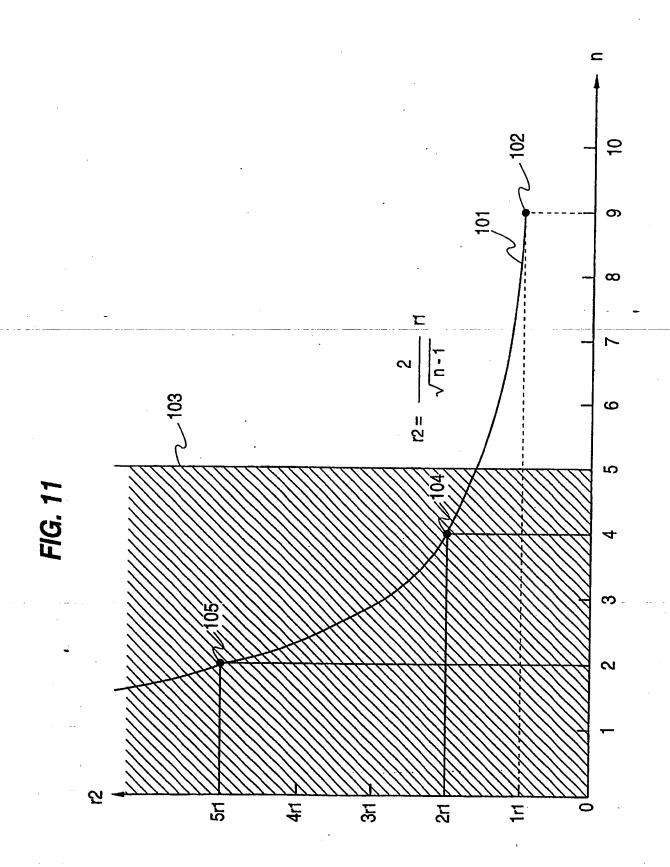
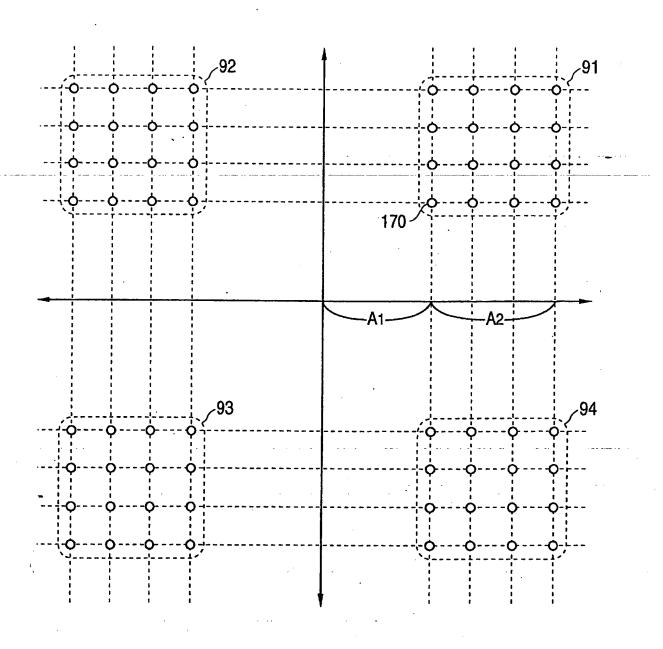
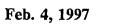
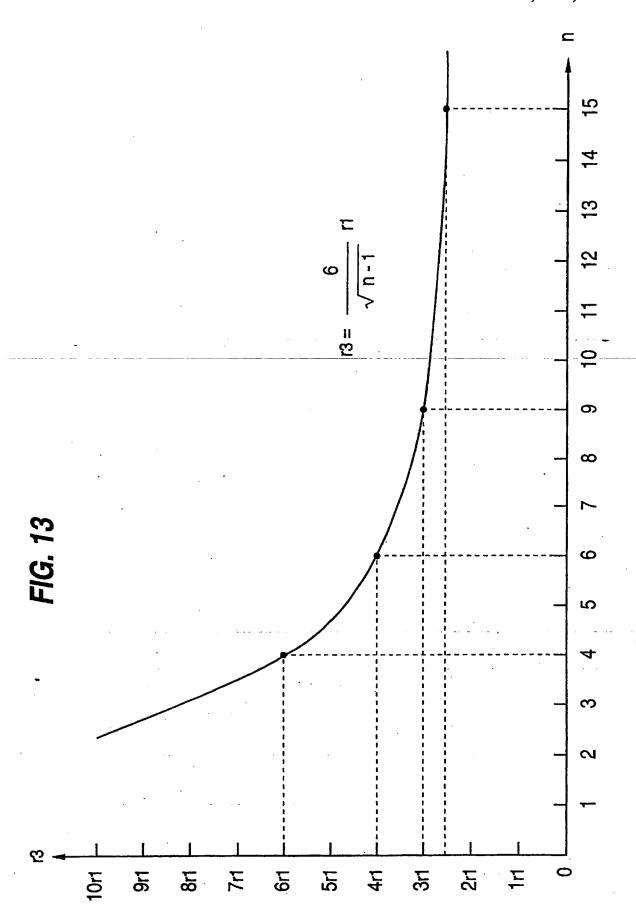


FIG. 12







U.S. Patent

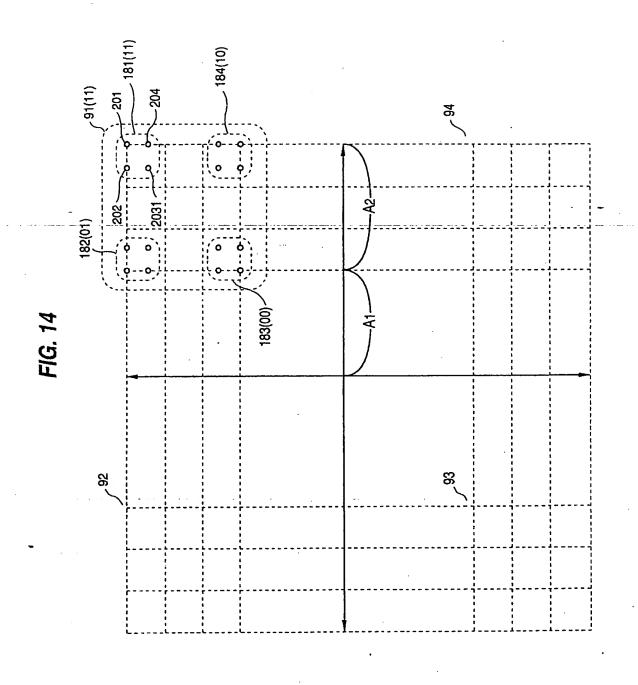
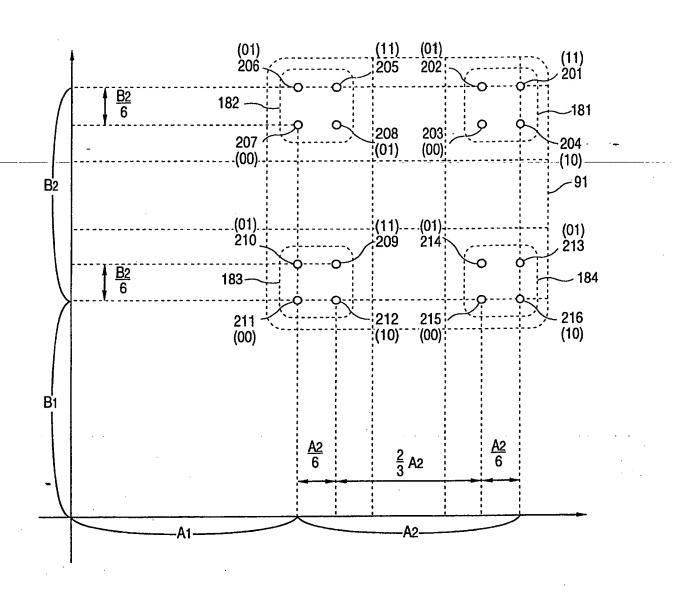
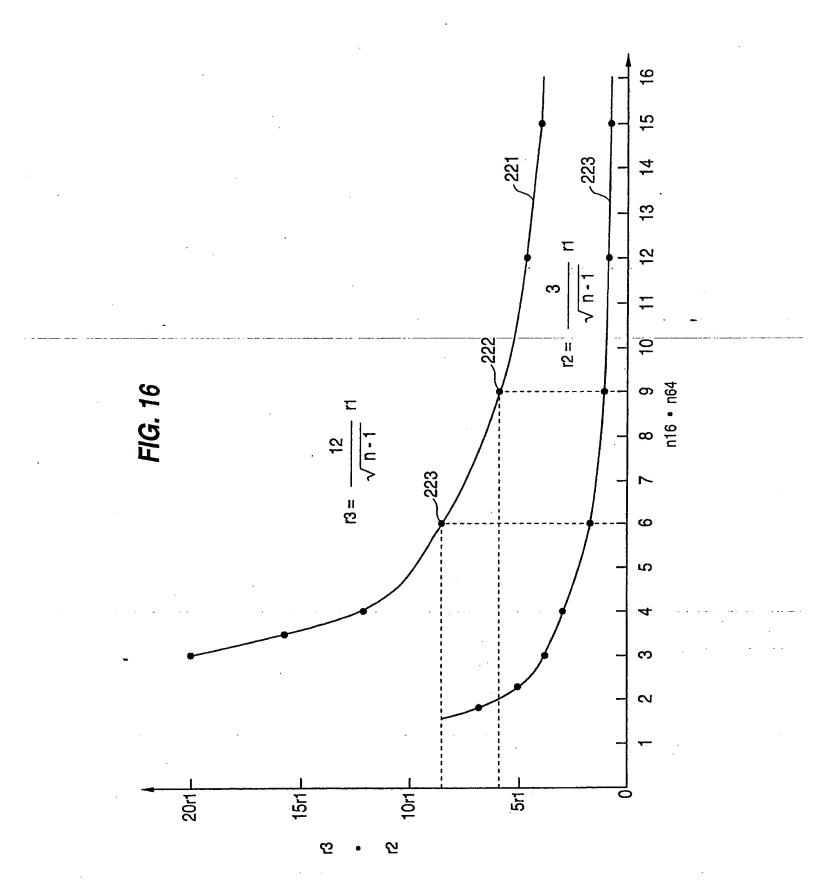


FIG. 15





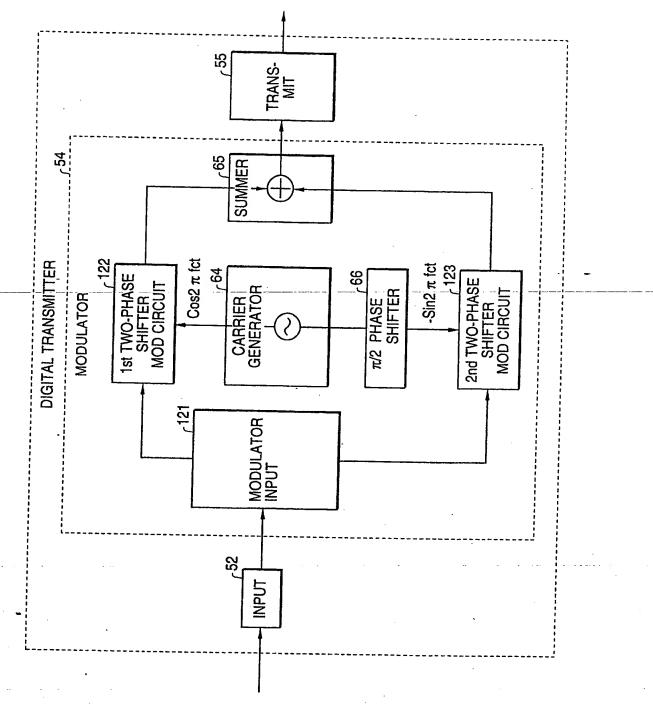
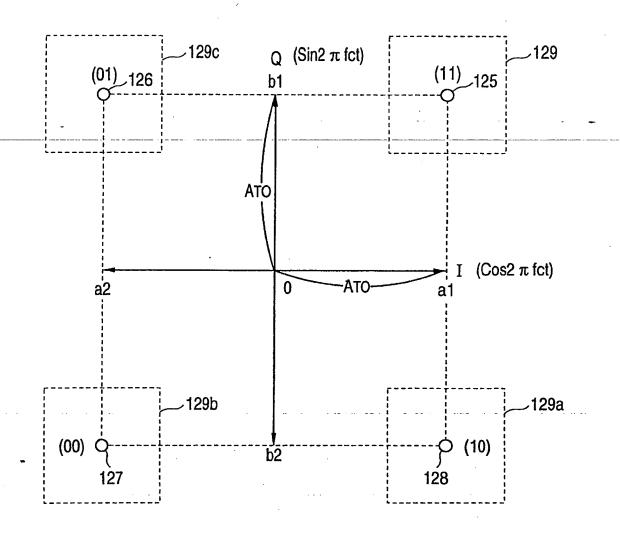


FIG. 17

FIG. 18



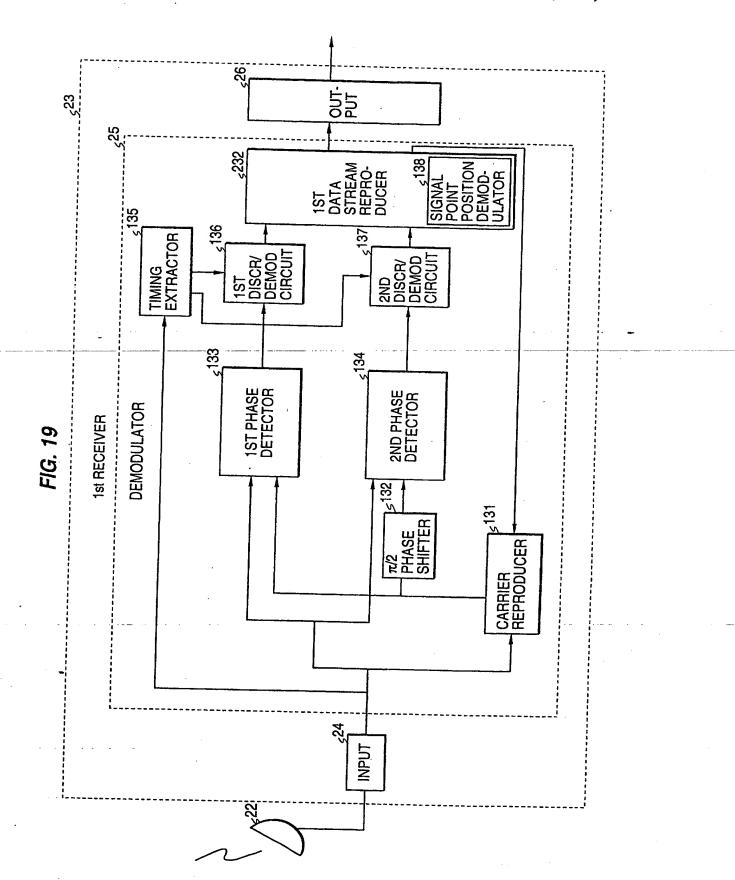
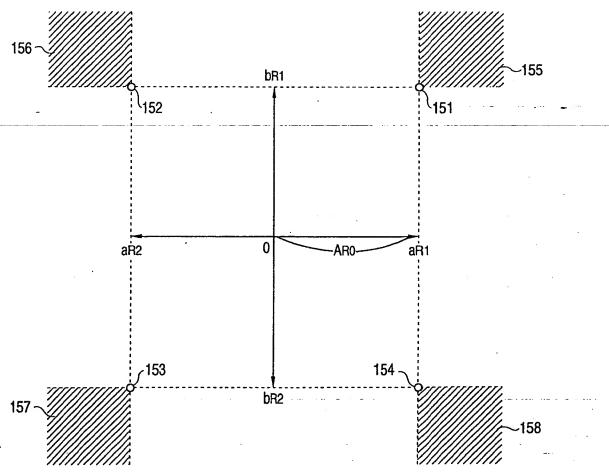


FIG. 20



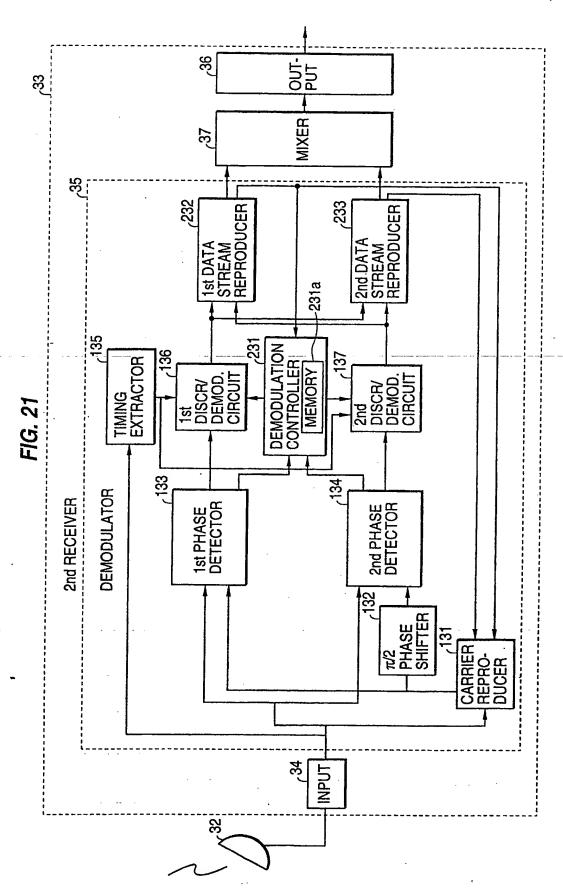
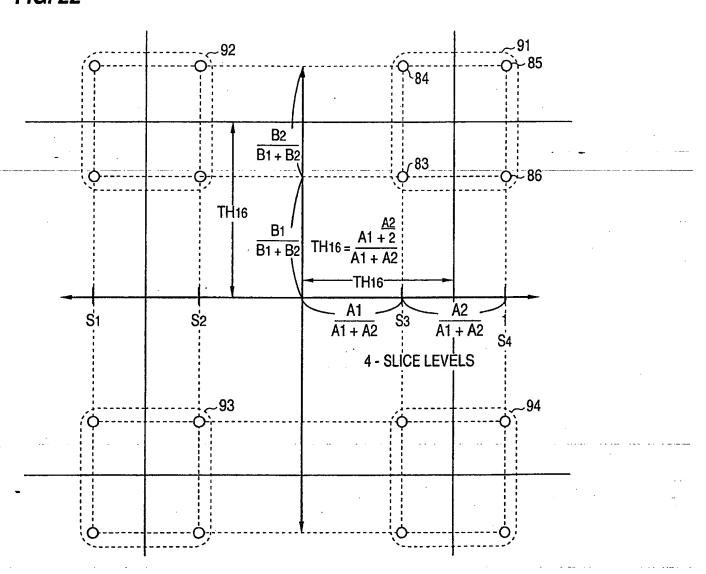


FIG. 22



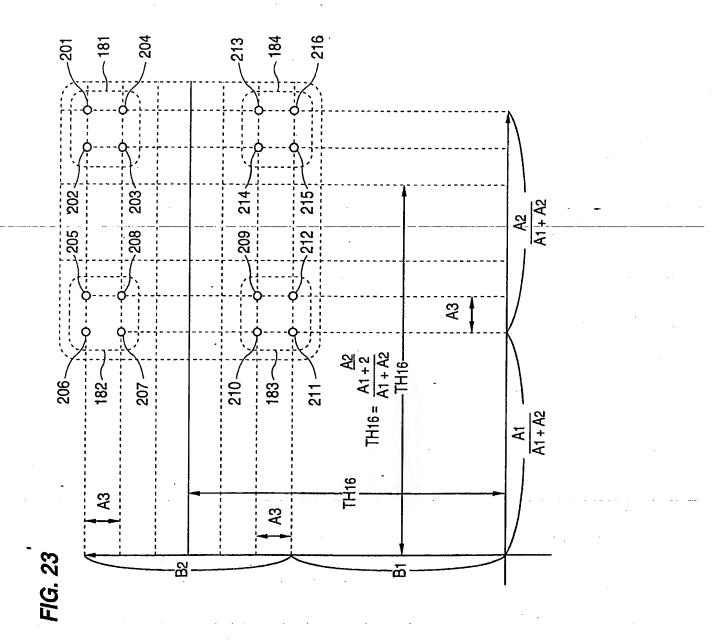


FIG. 24

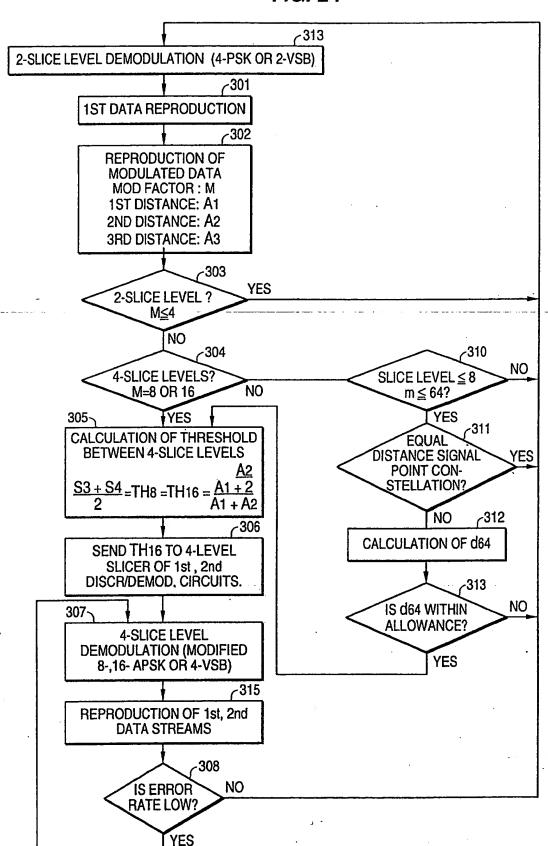


FIG. 25(a)

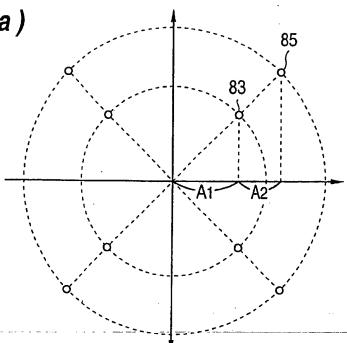
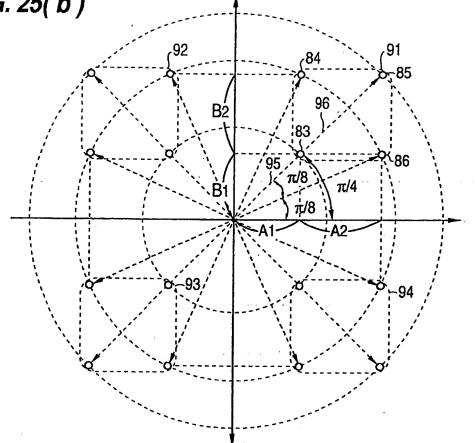
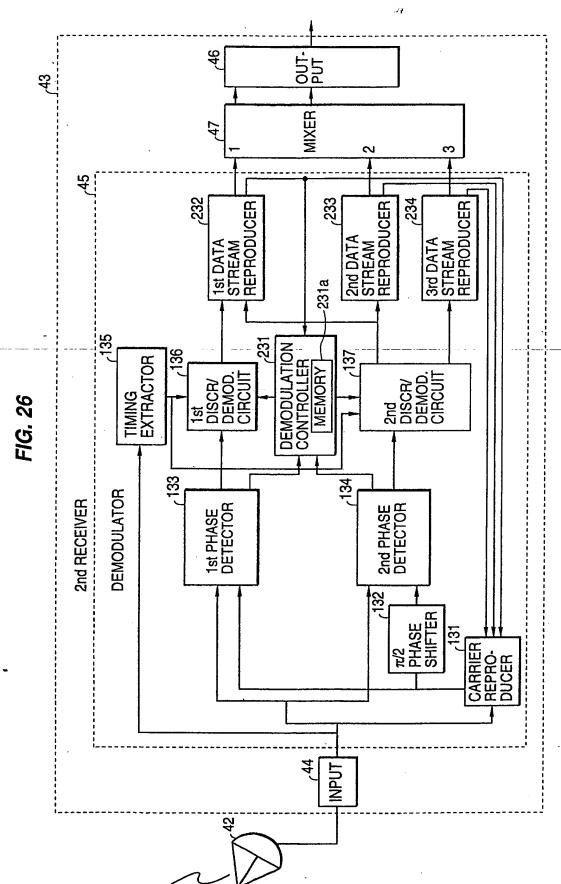


FIG. 25(b)





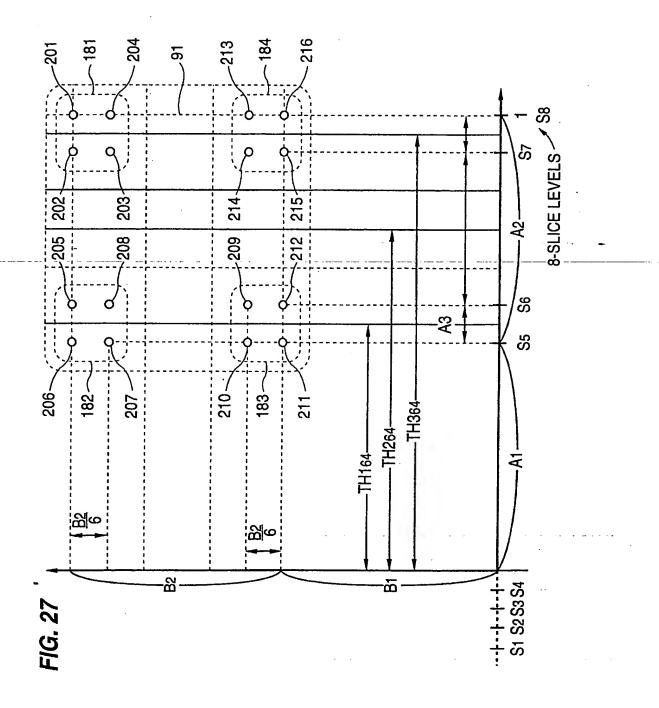
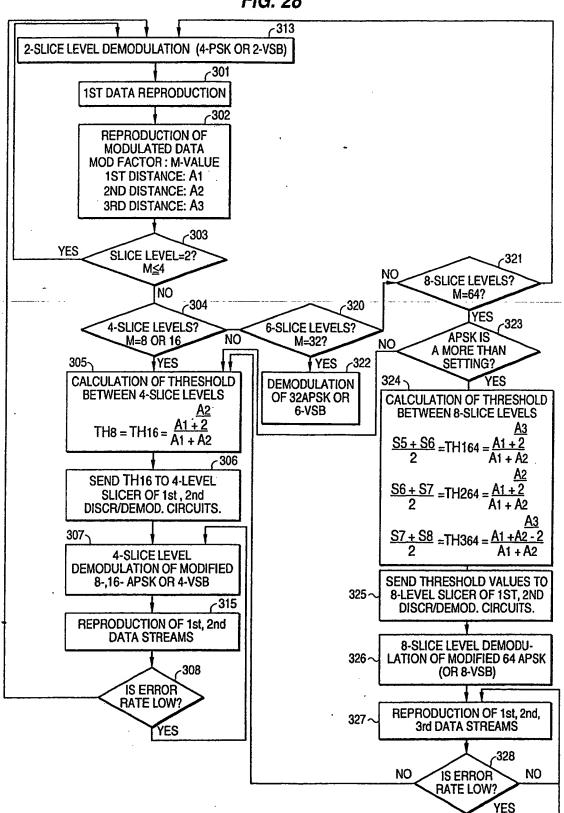
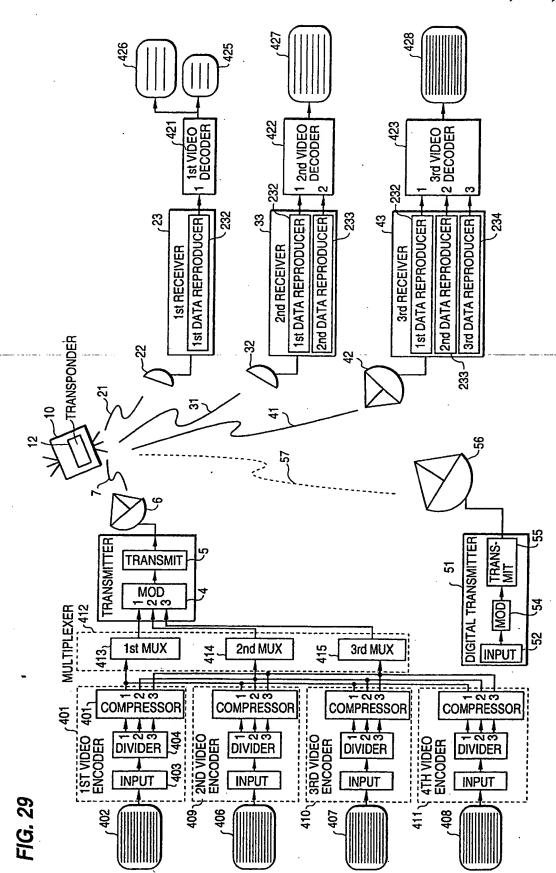
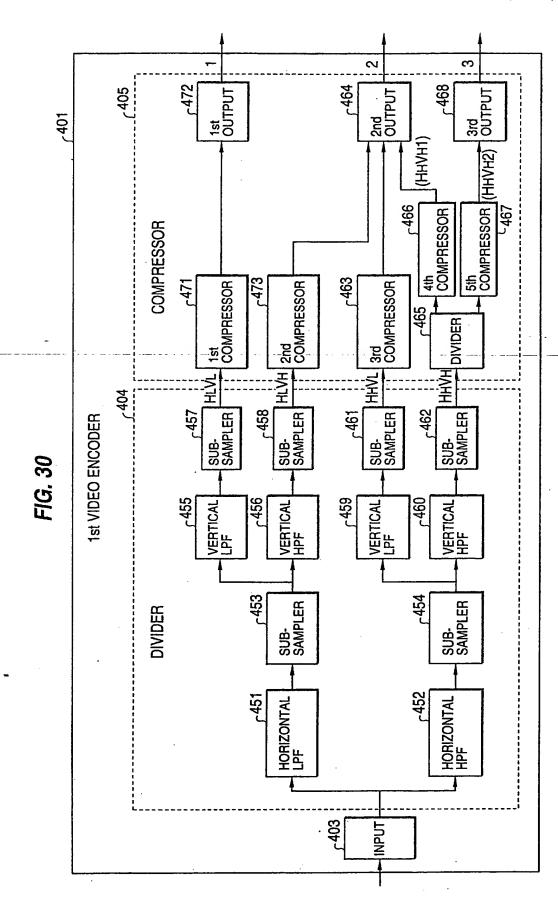
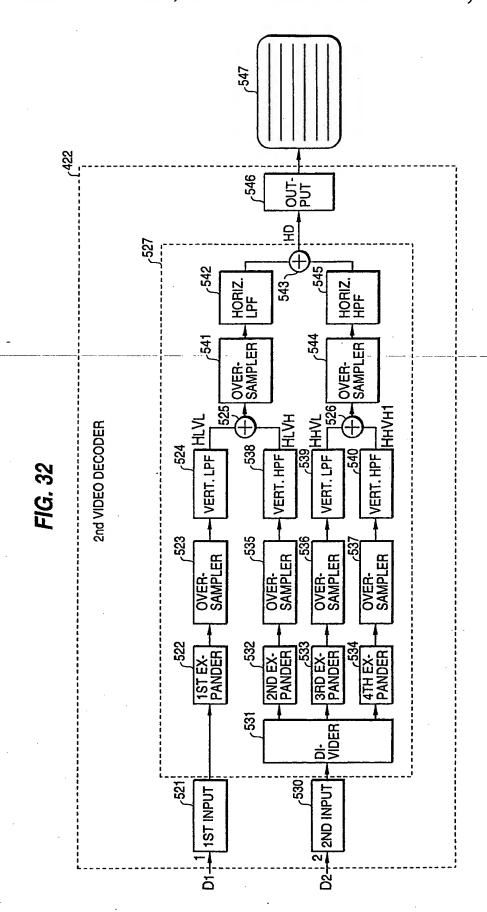


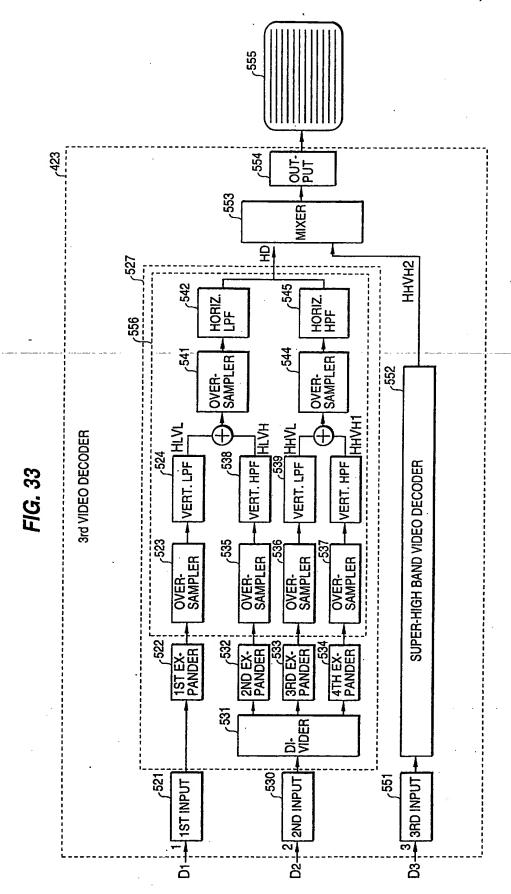
FIG. 28



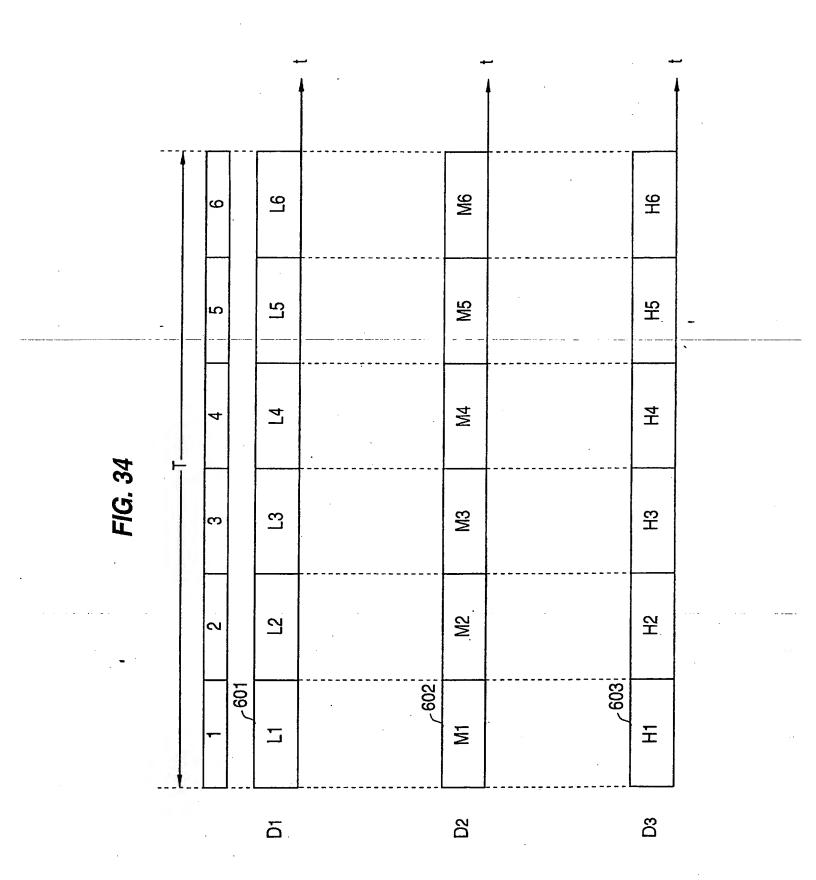


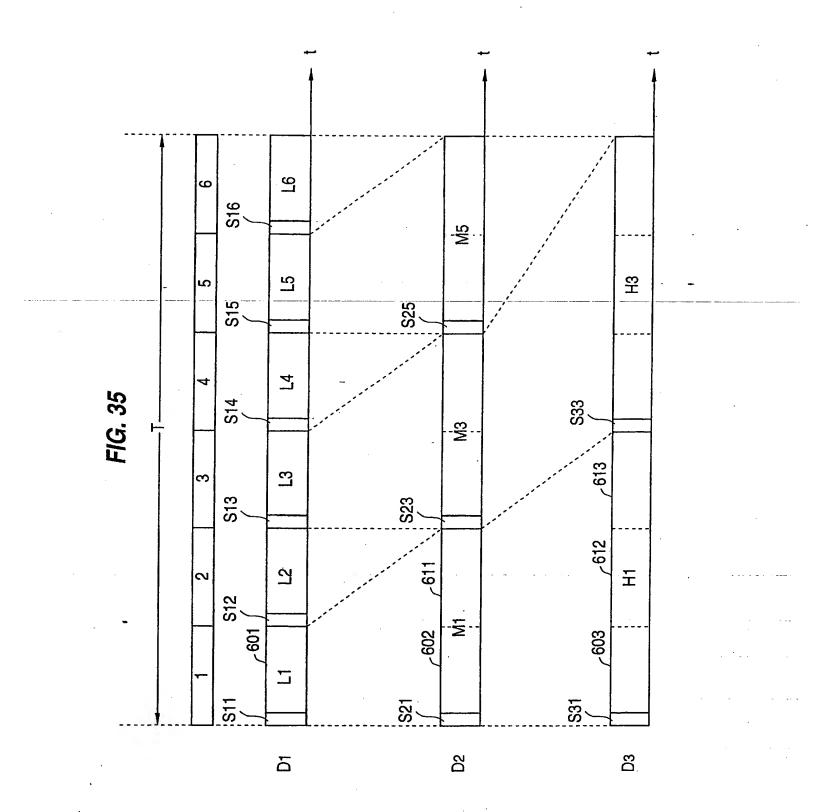


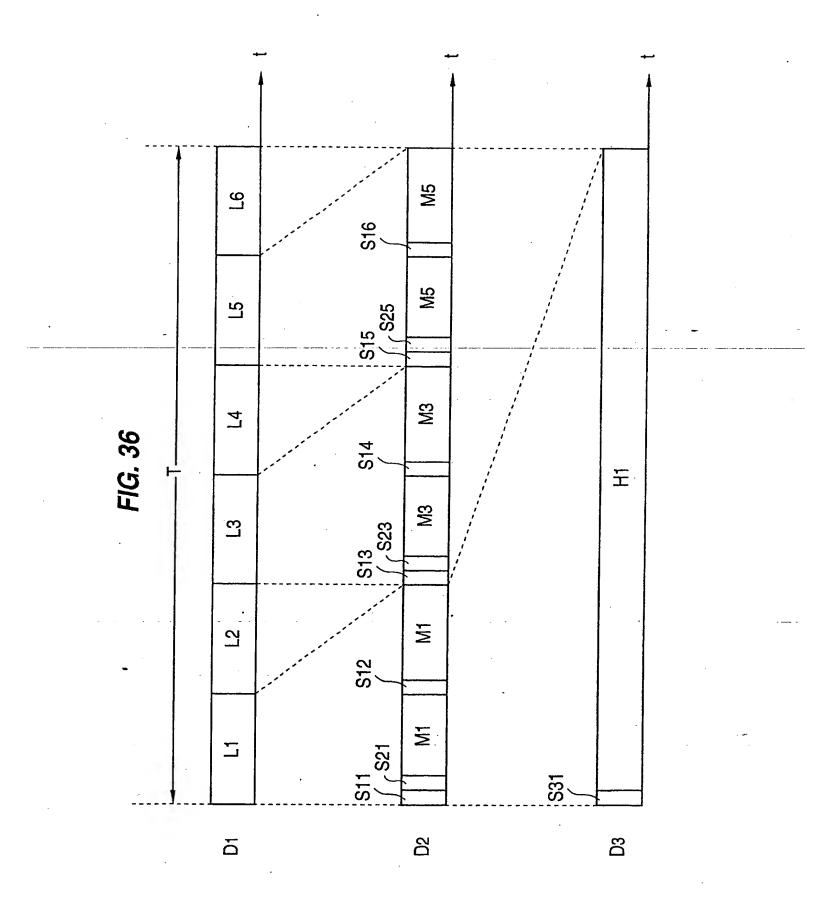




Feb. 4, 1997







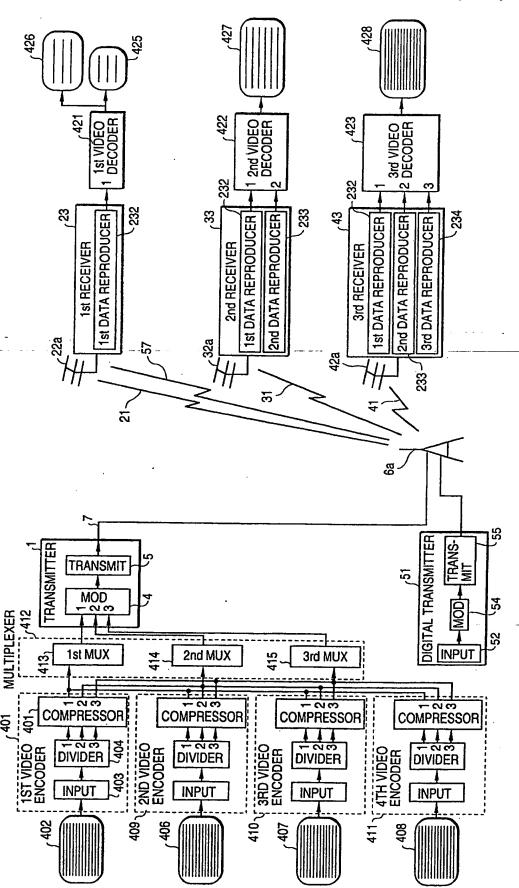
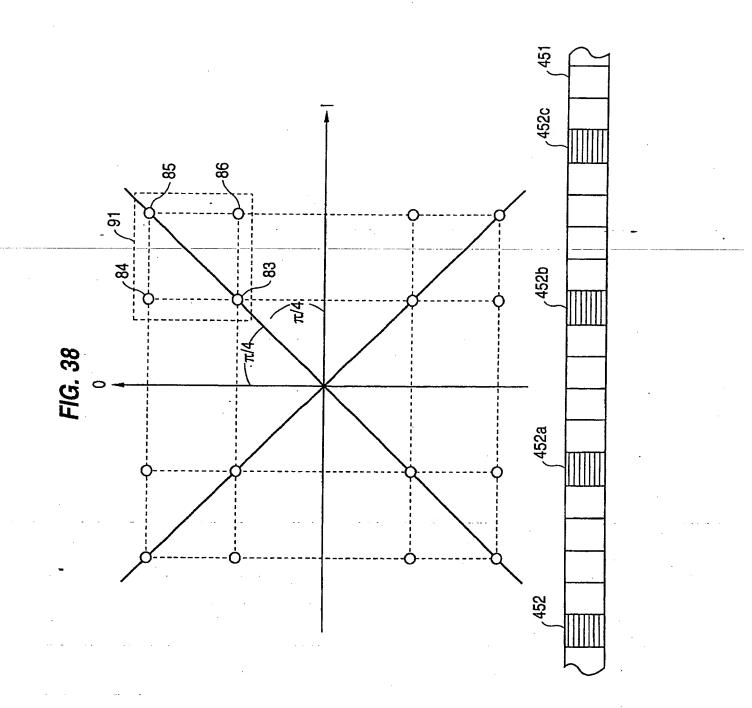
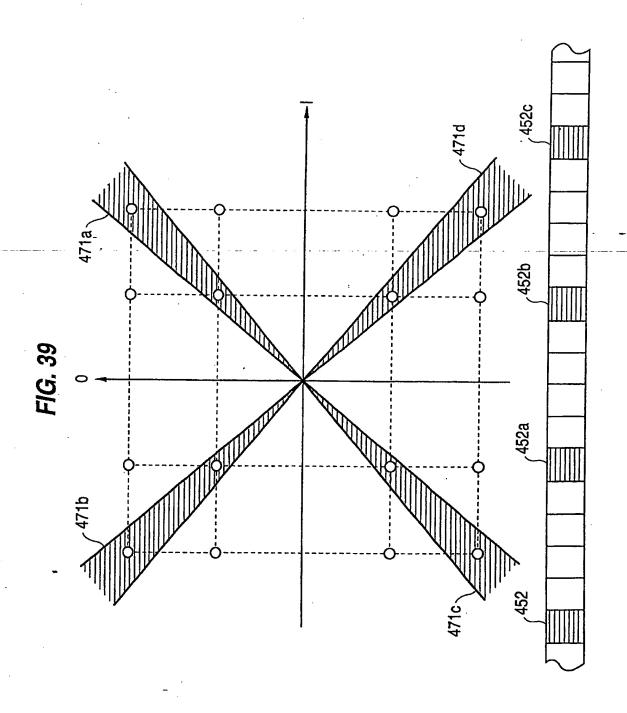
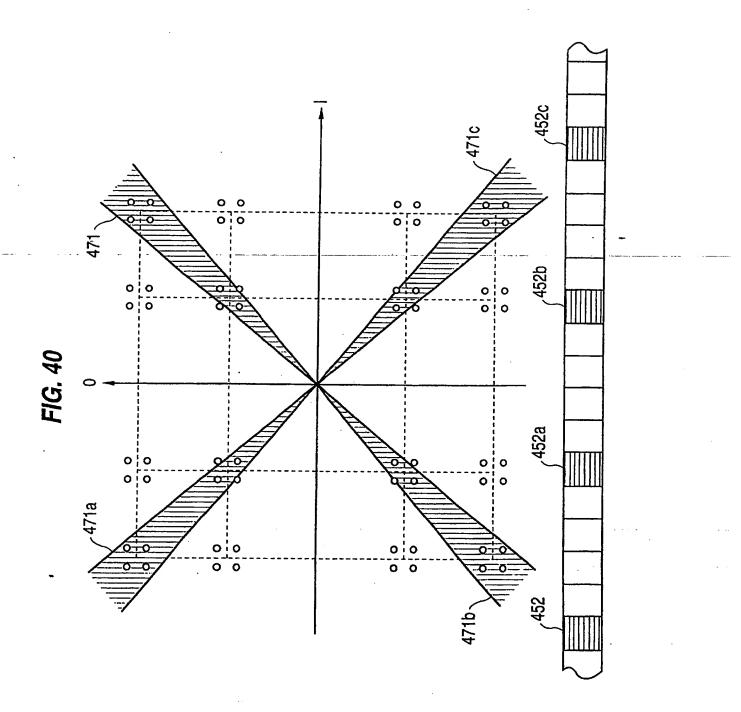
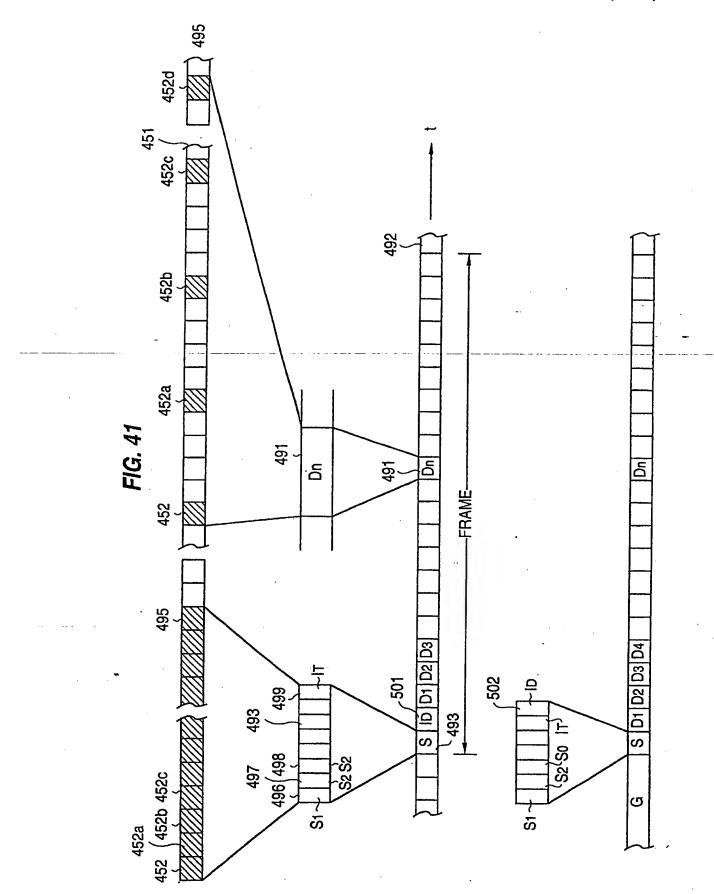


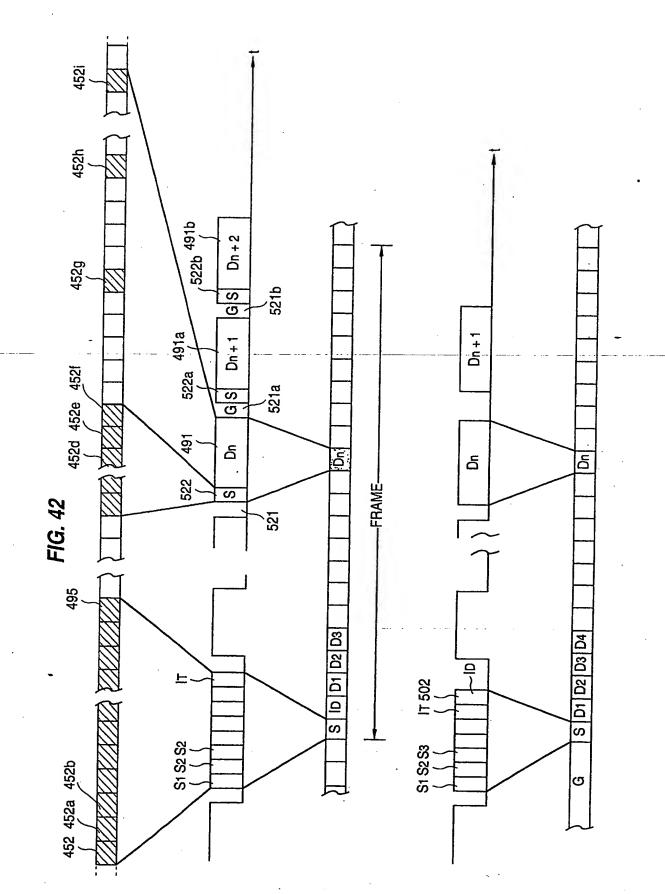
FIG. 37

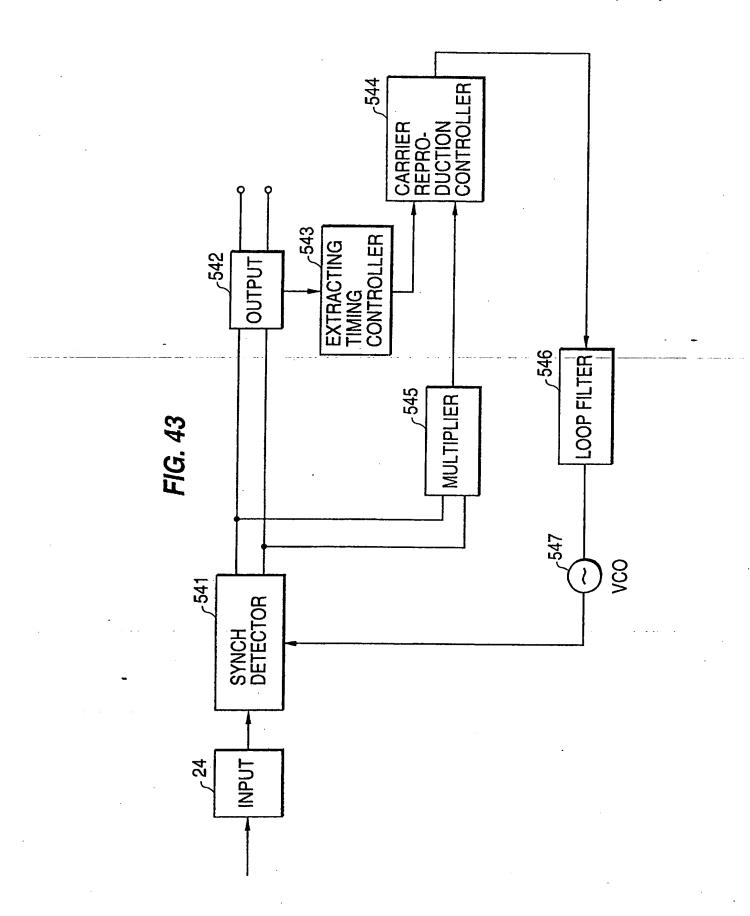


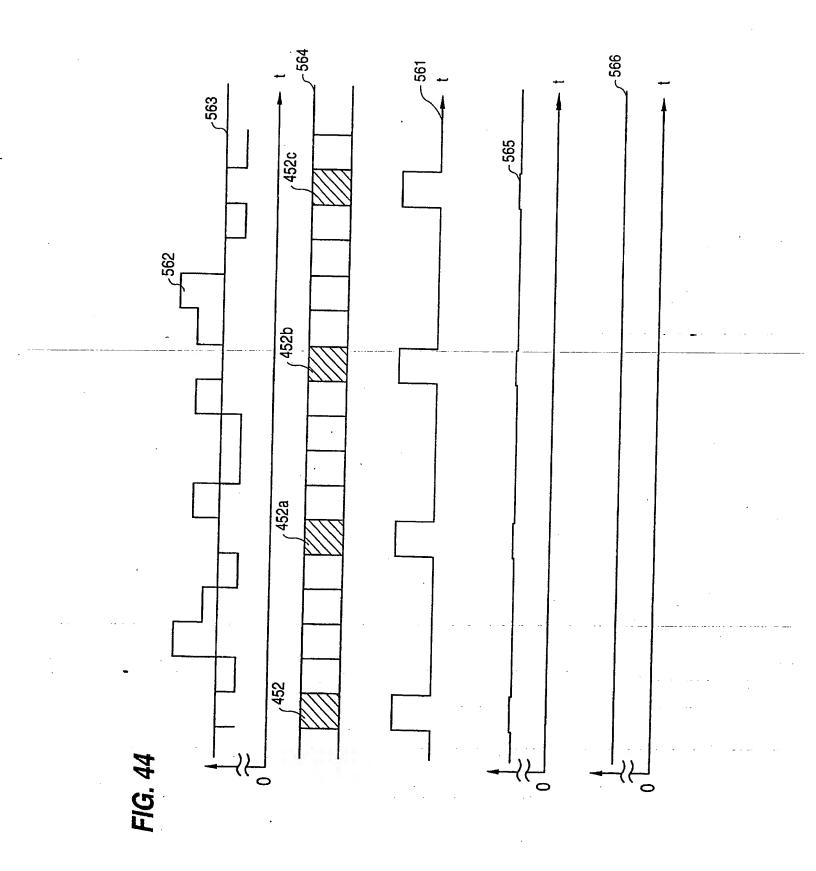


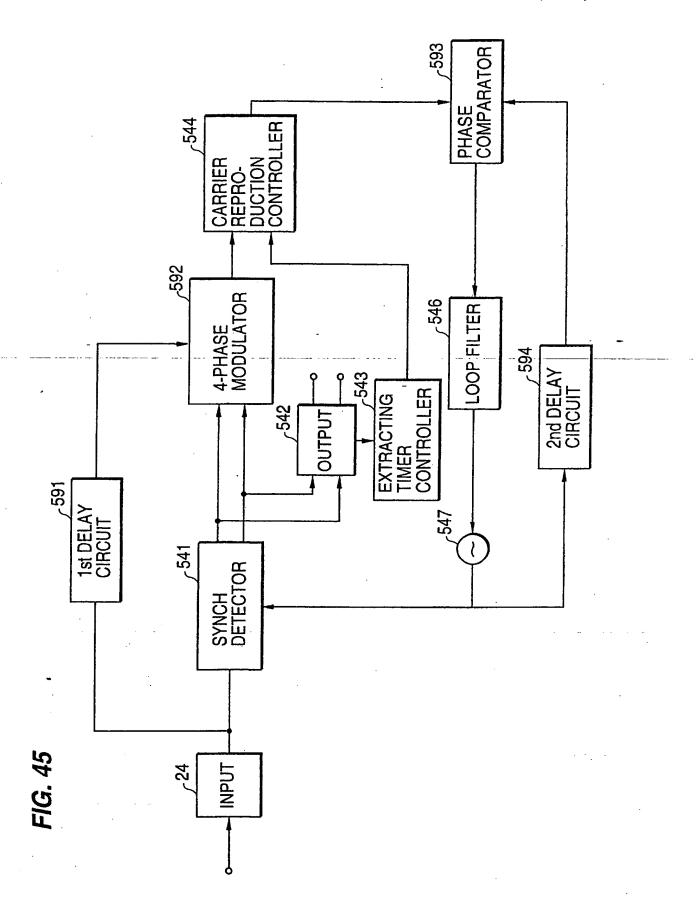


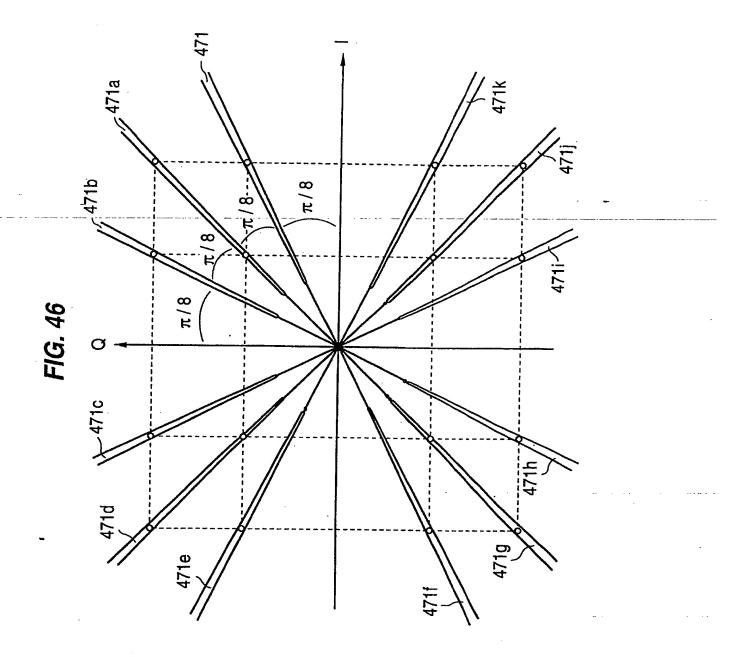


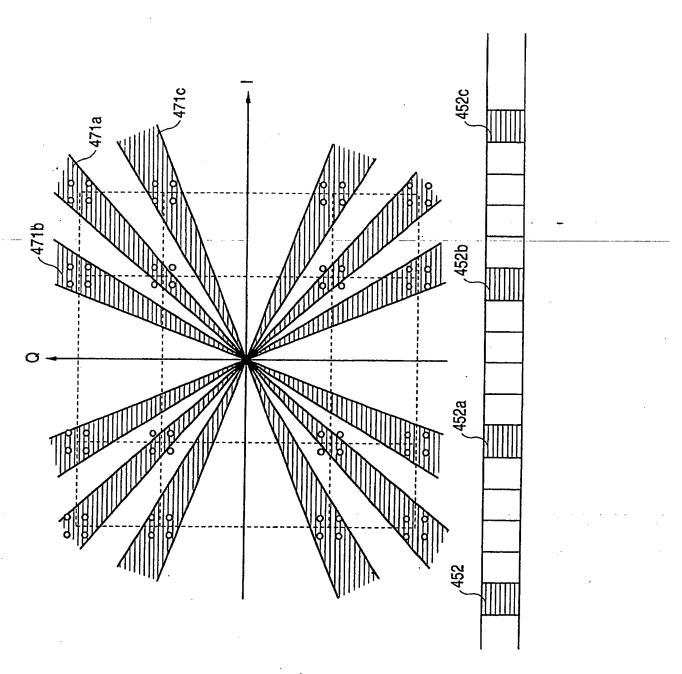












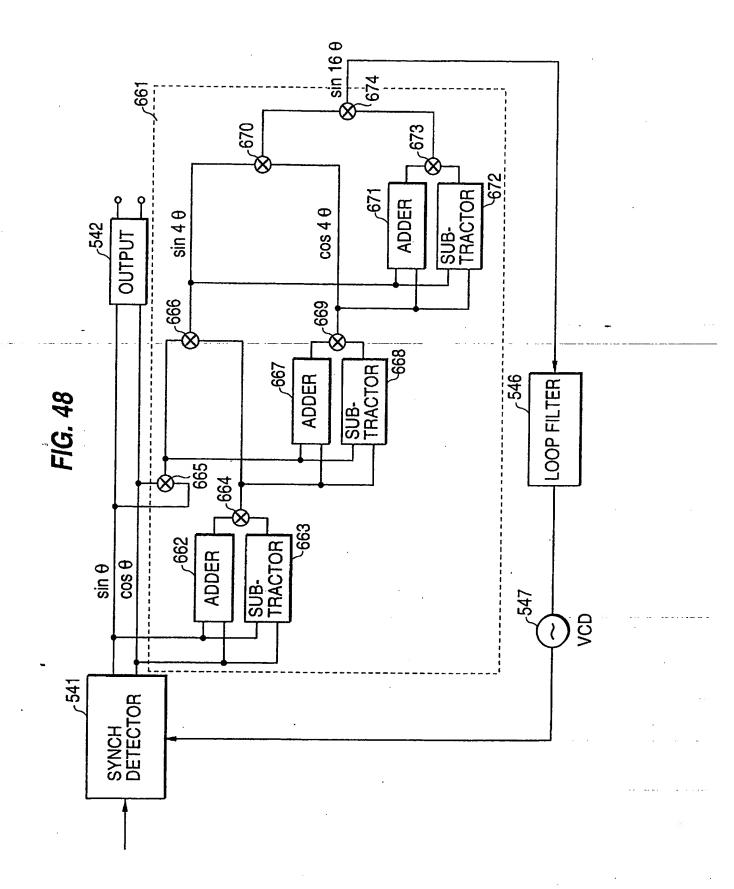
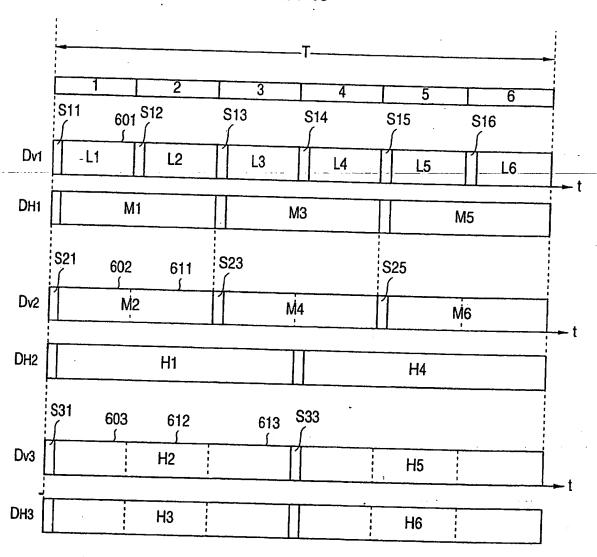
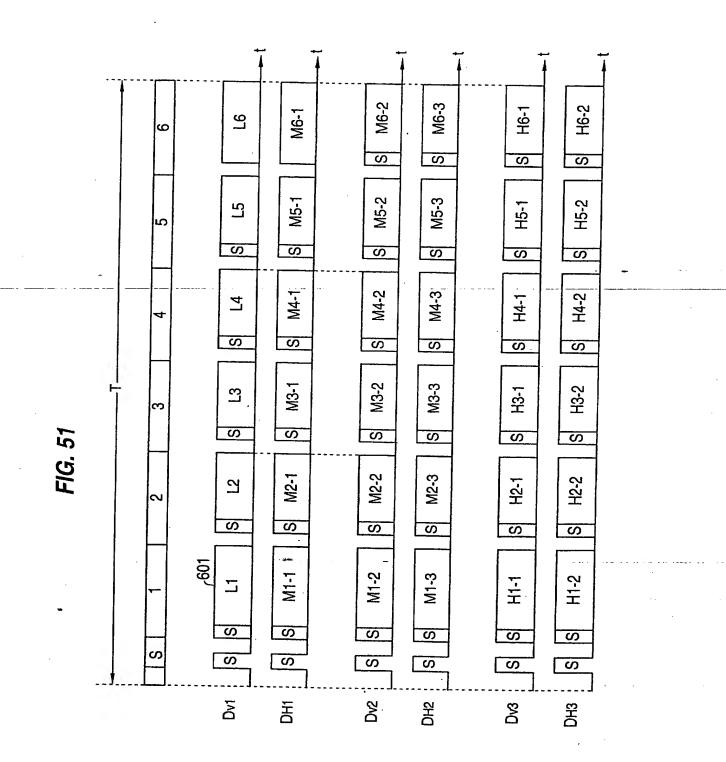
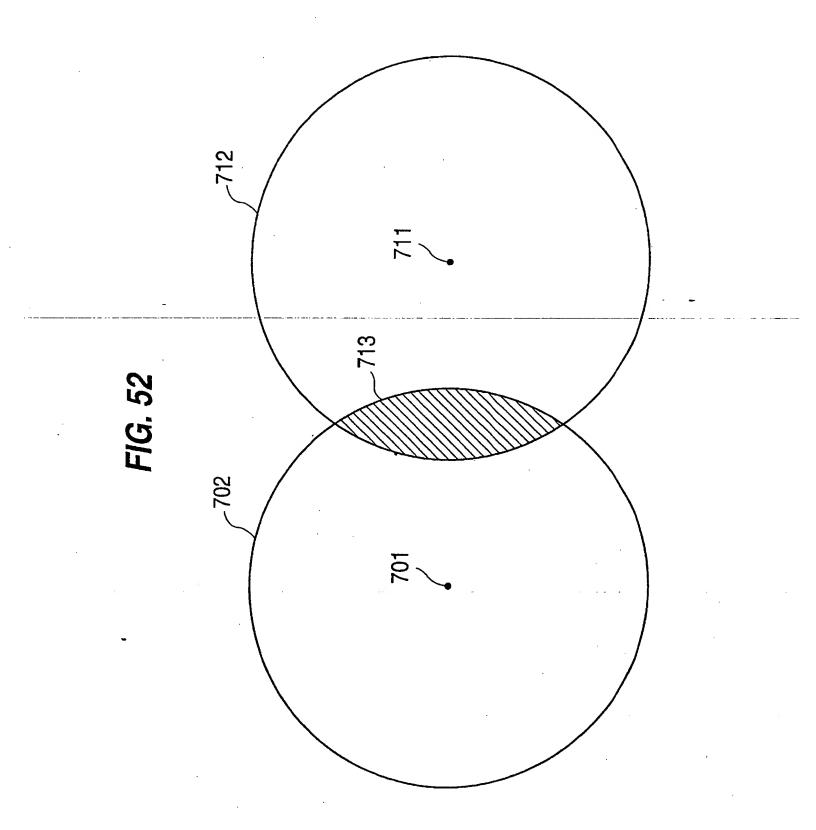


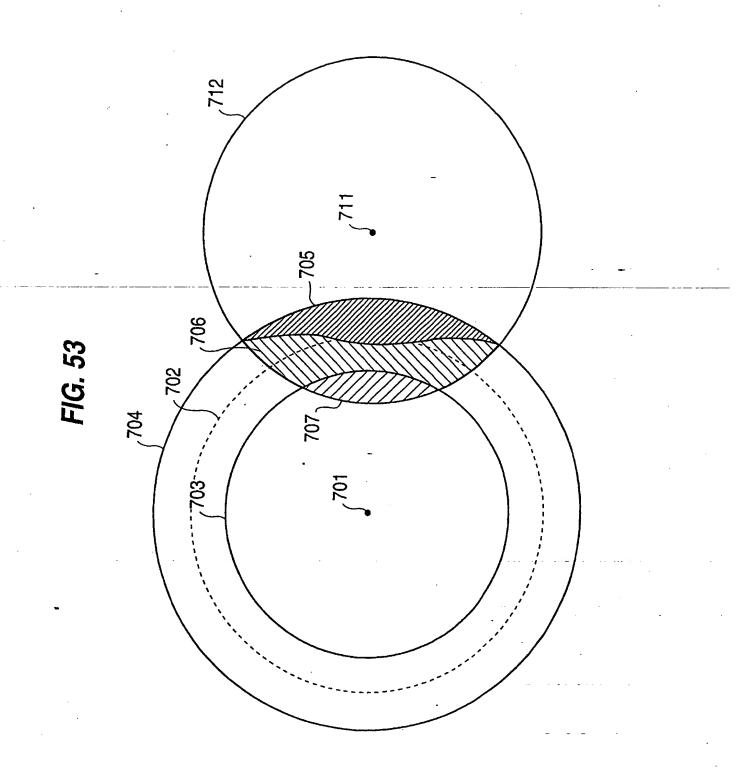
FIG. 49

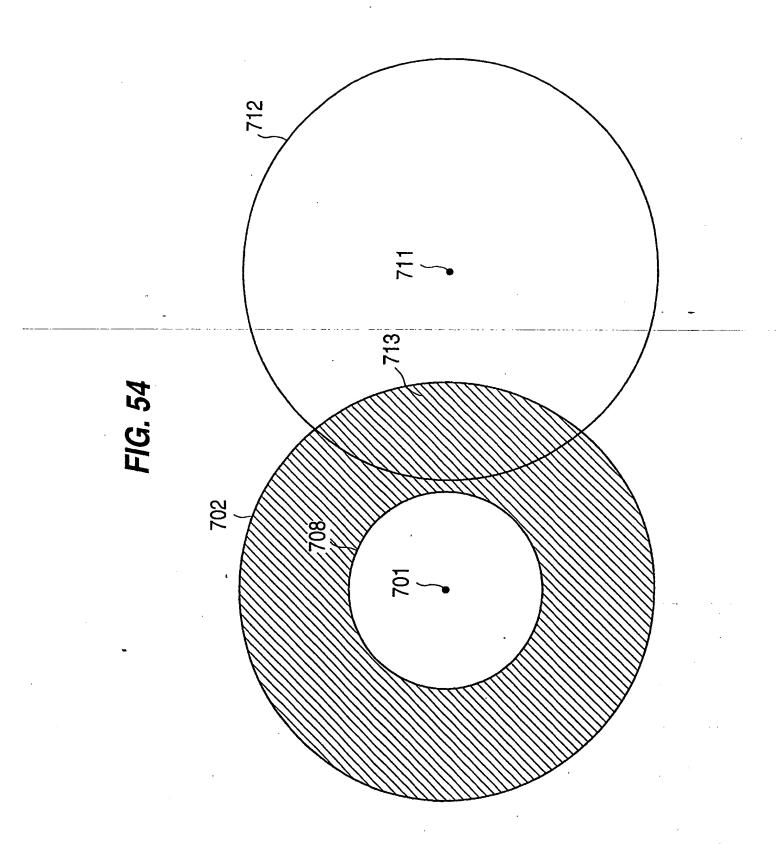


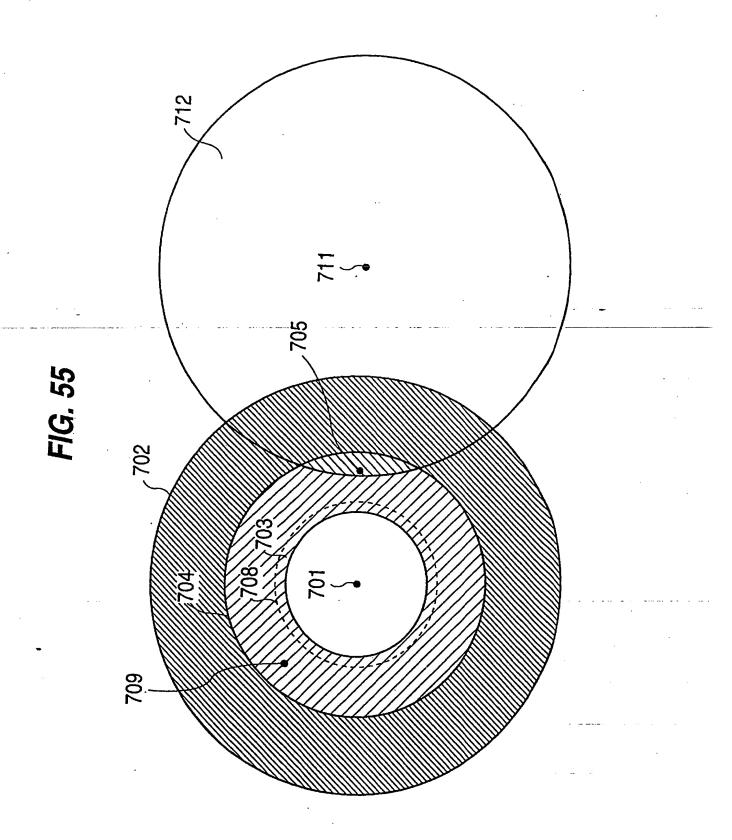
750e H6-2 H6-4 H6-1 <u>8</u> 9 S တ S S 750d H5-2 H2-3 H5-4 H5-1 35 2 S တ S S S 750c H4-2 H4-3 H4-4 H4-1 **M** 7 741c တ တ တ S က ഗ 750b 741b 731b H3-2 H3-3 H3-4 H3-1 **M3** Ξ ഗ S တ ഗ တ တ .750a H2-2 H2-3 H2-4 H2-1 741a / 731a **M**2 \simeq S ഗ ဟ တ တ 750 H1-2 H1-3 H1-4 Ŧ Ξ 731 S S S S ဟ တ S S လ လ တ Dv2 2 원. 絽 ፩. OH











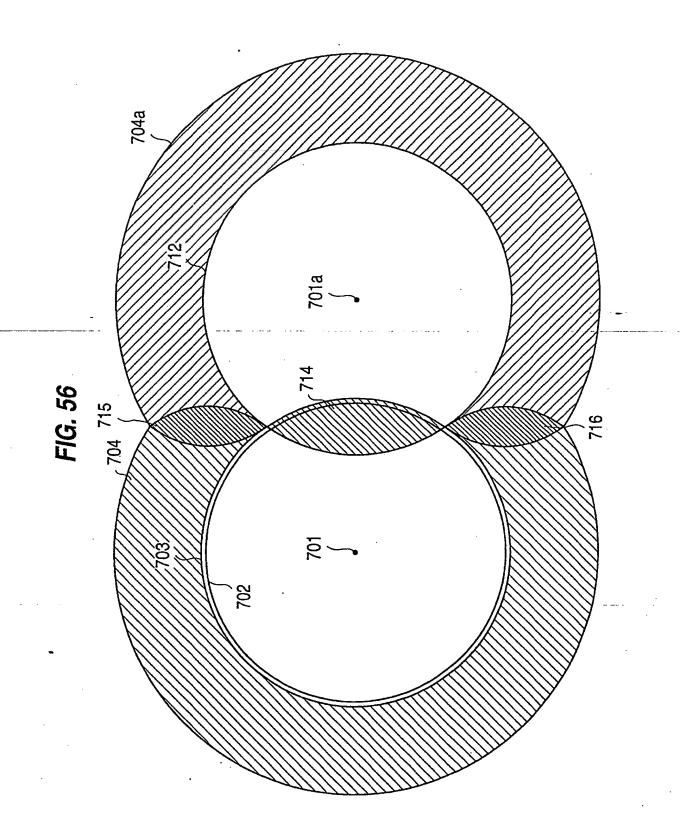


FIG. 57

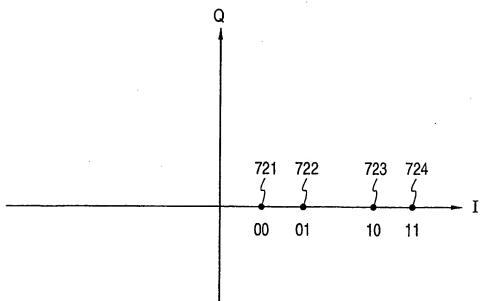
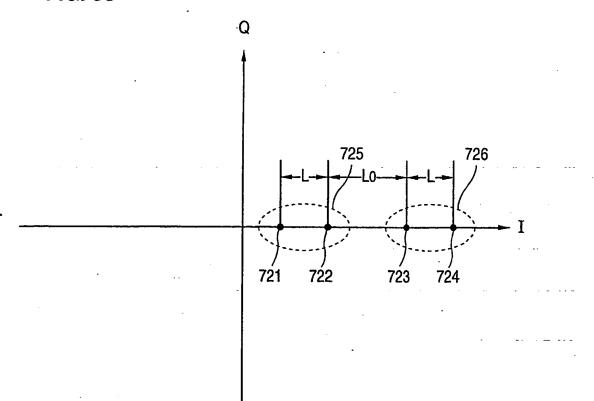
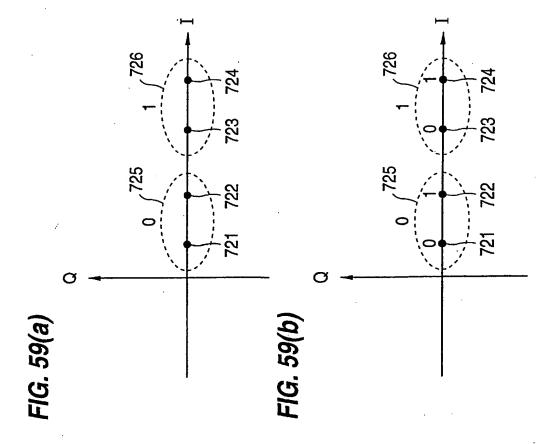
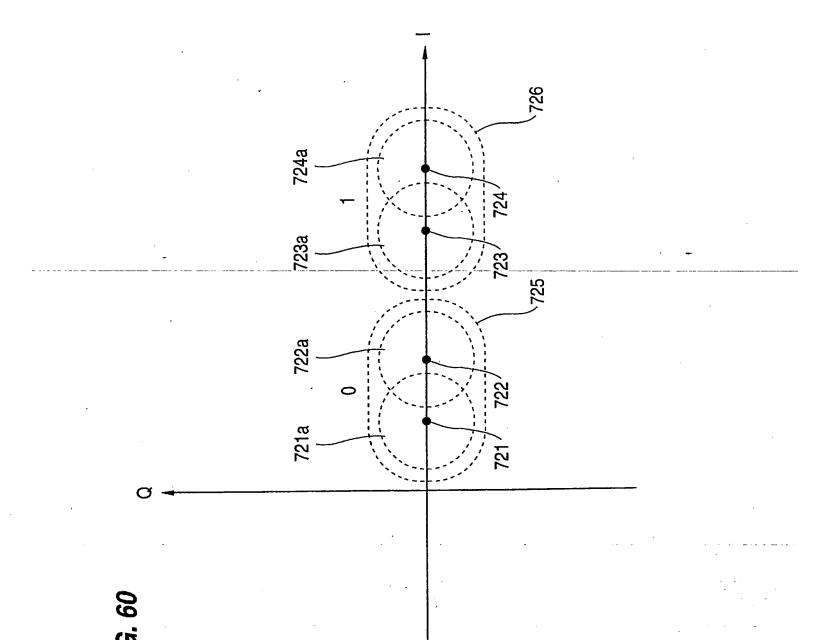
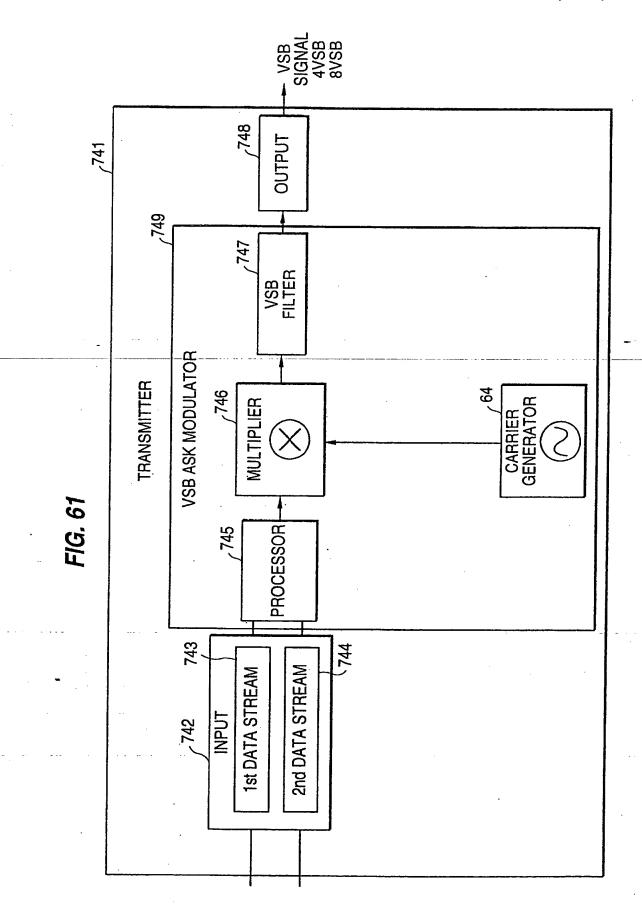


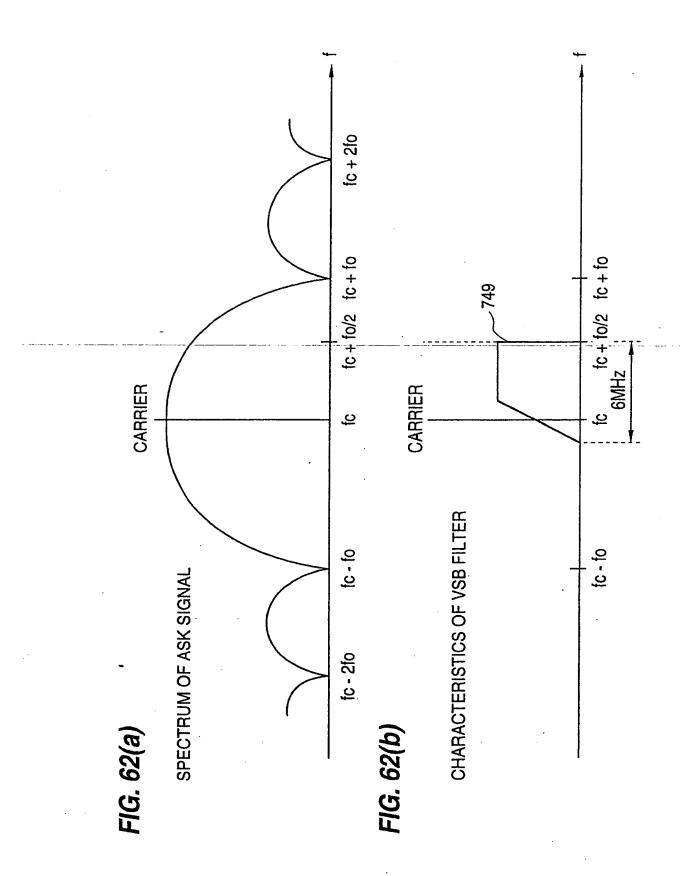
FIG. 58

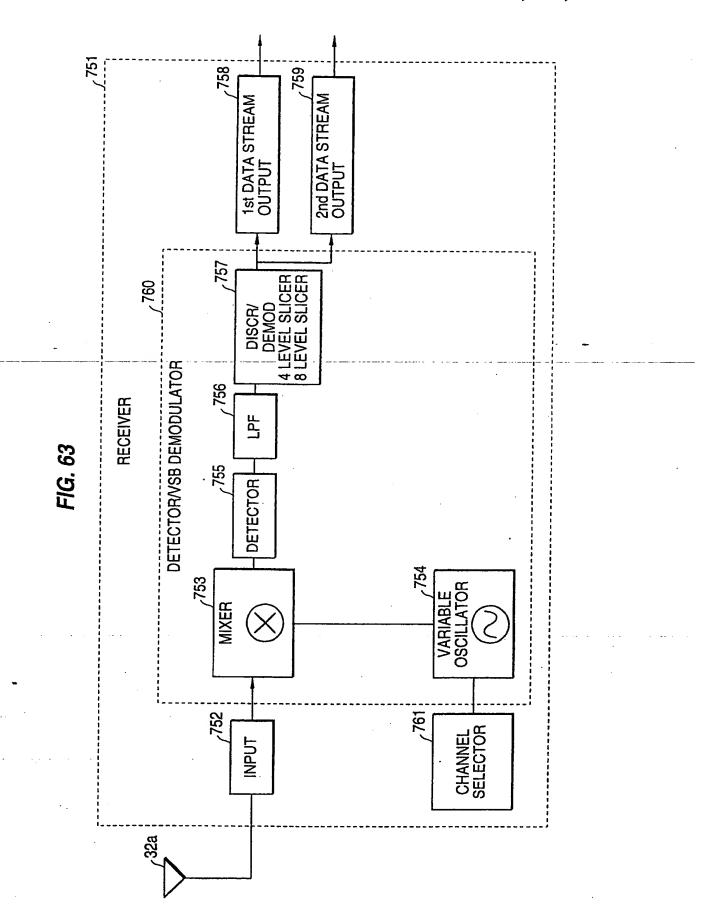


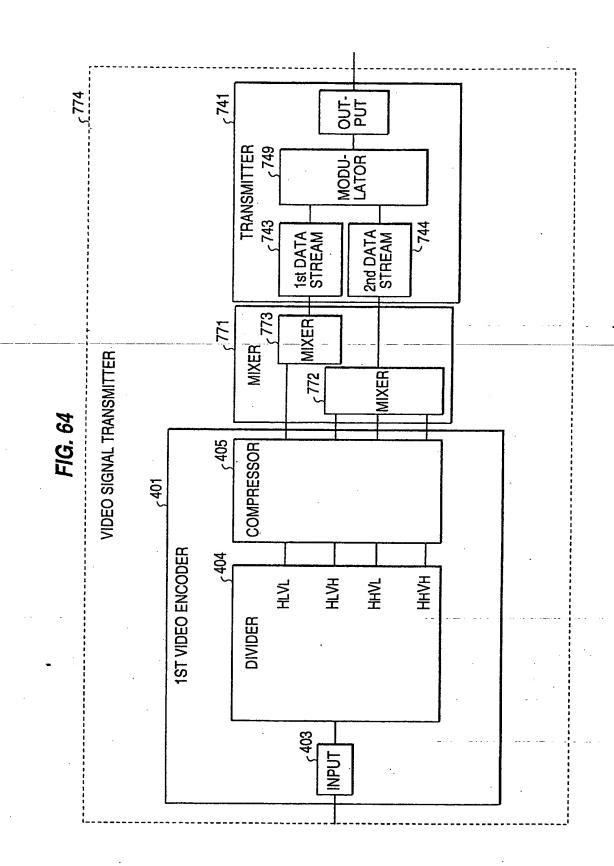


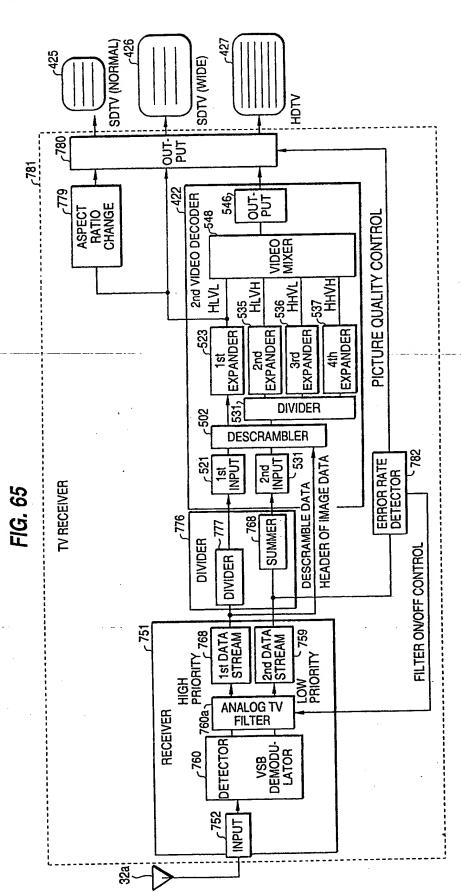












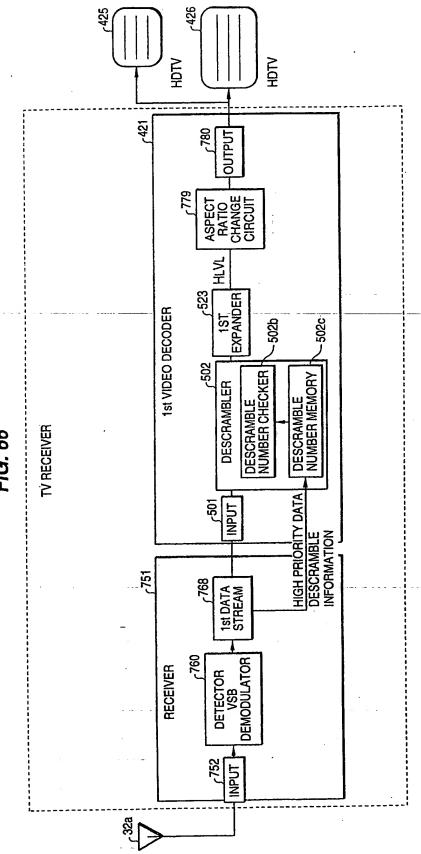
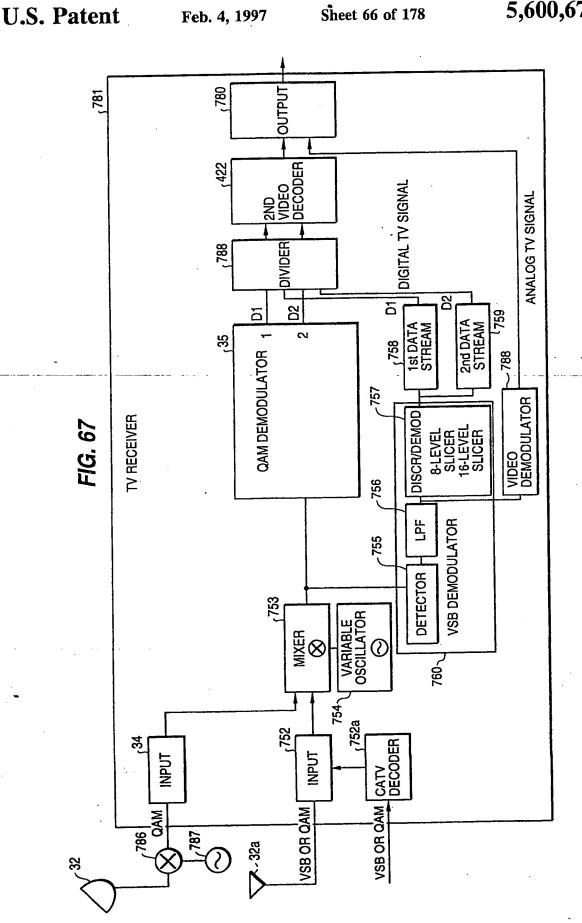
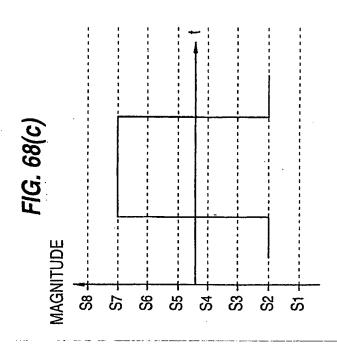
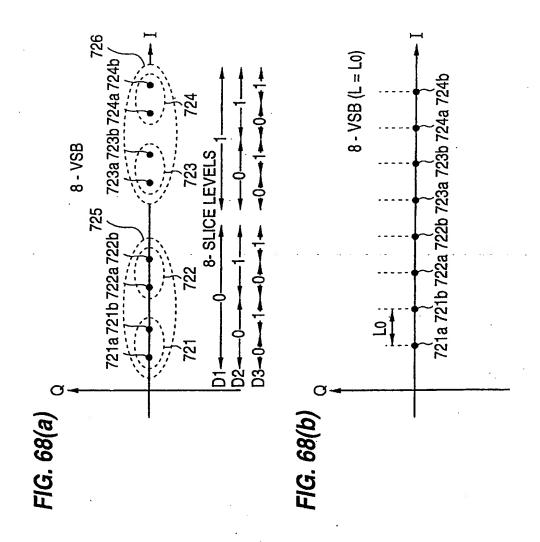


FIG. 66

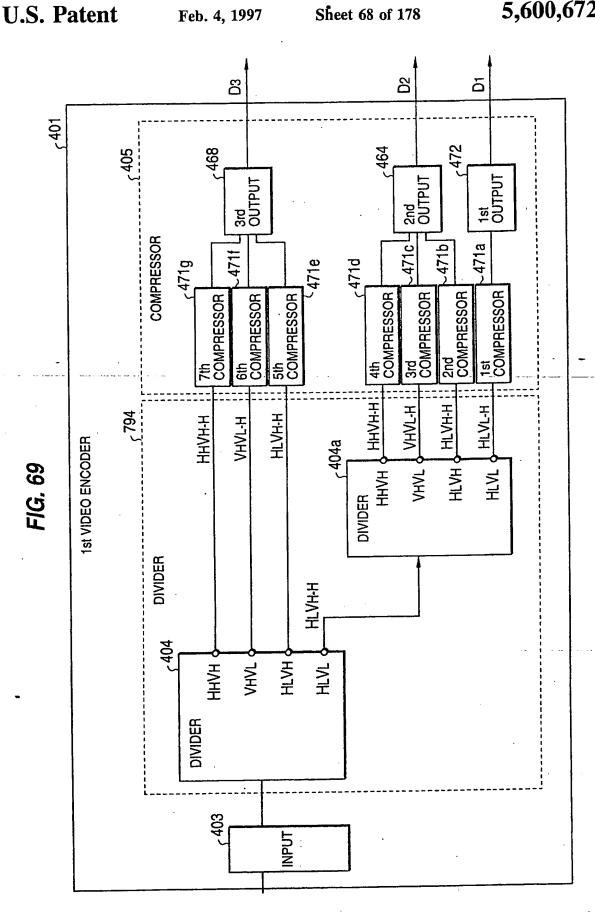
U.S. Patent

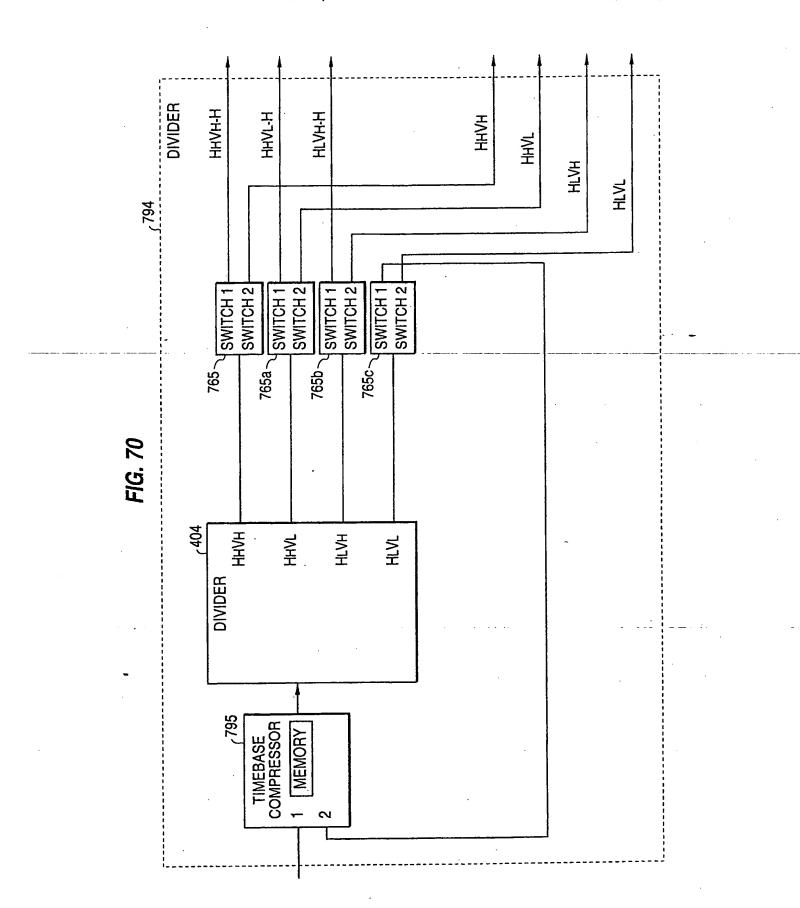


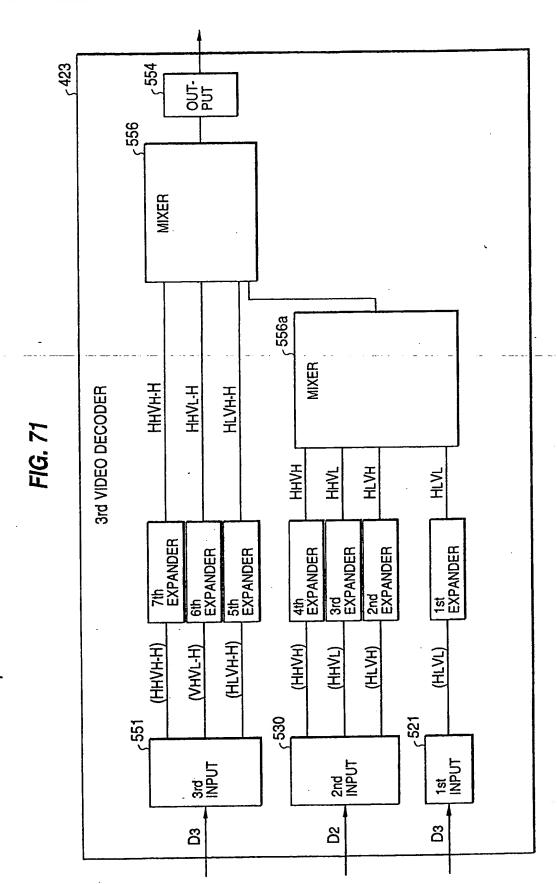


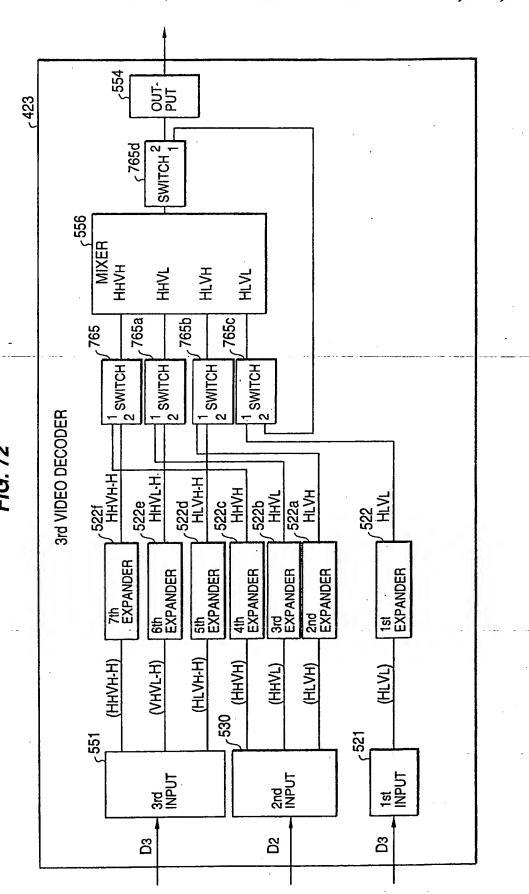


Feb. 4, 1997





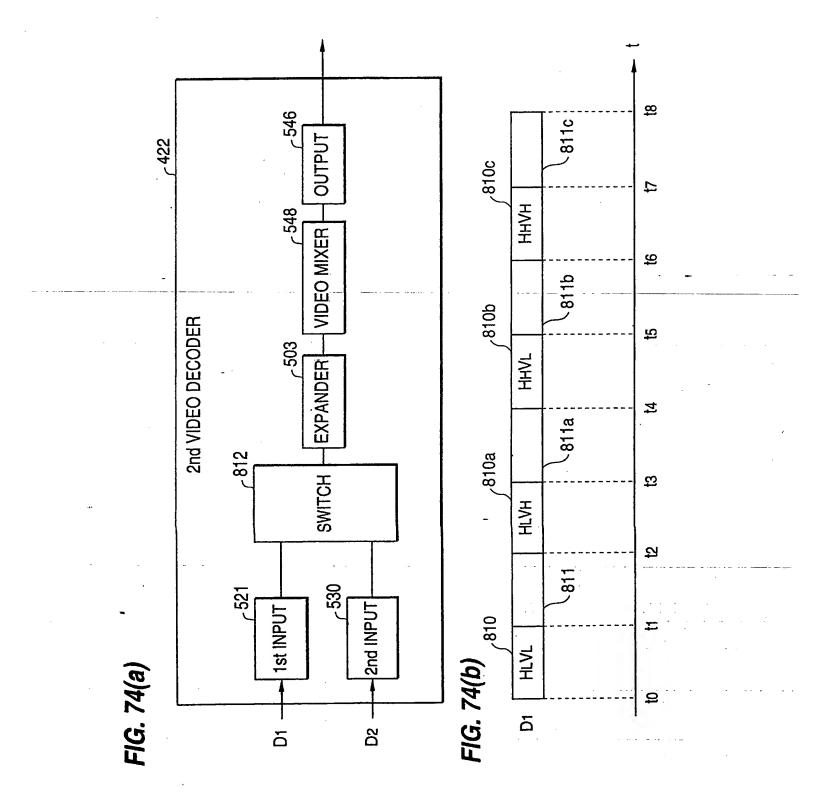


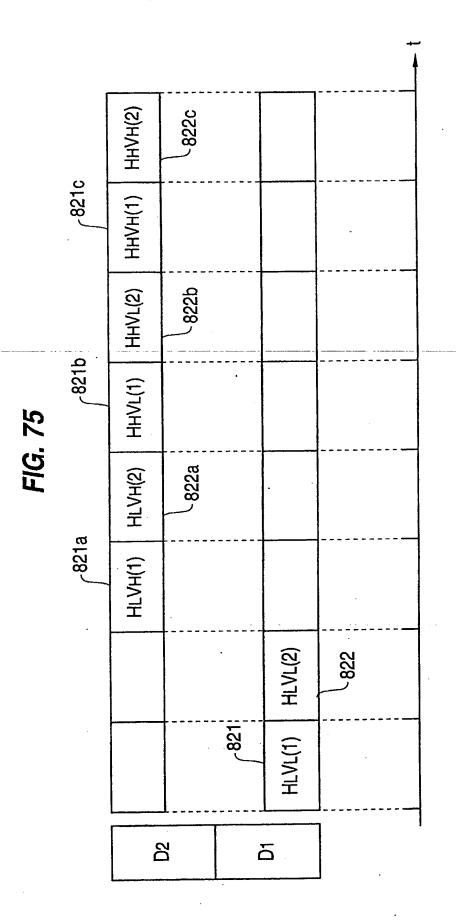


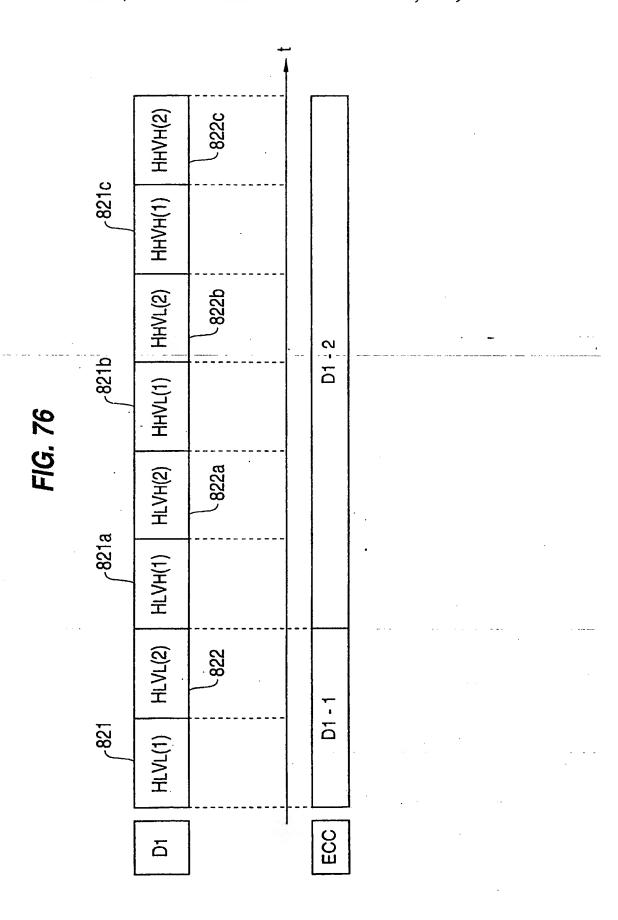
U.S. Patent

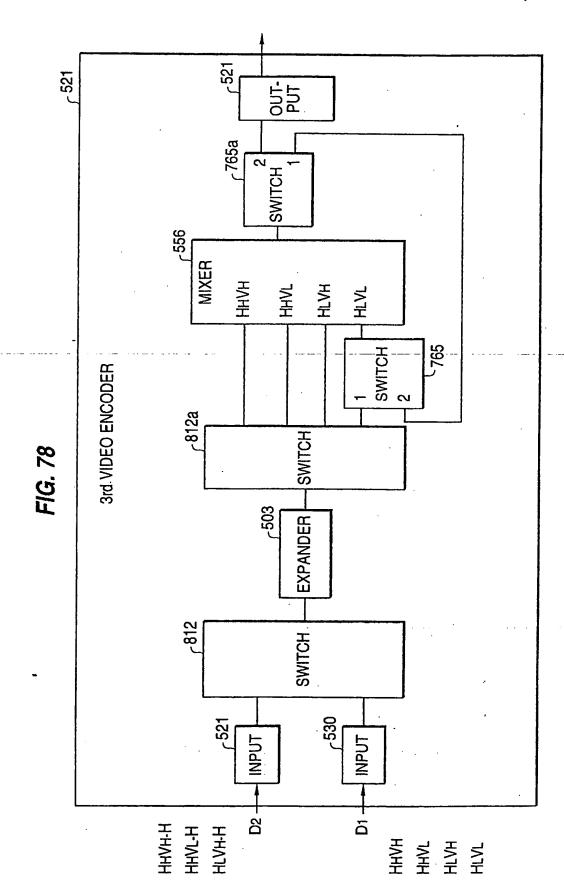
FIG. 73

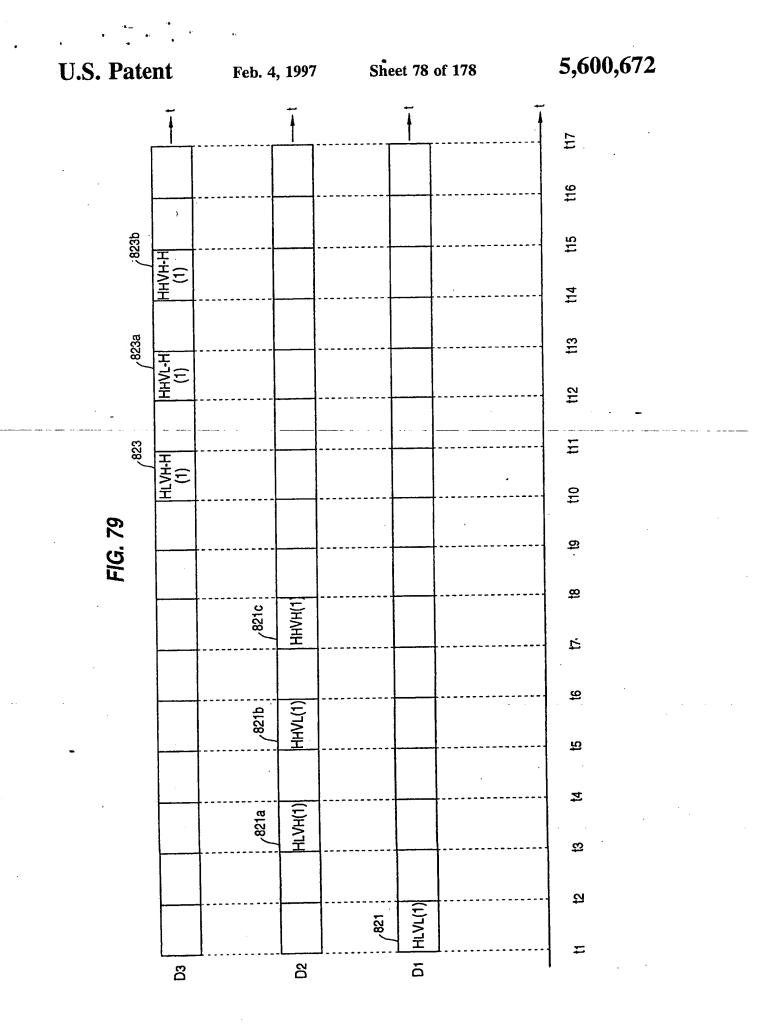
114 t12 HHVH-H Ξ TIMING 2 HHVL-H Ð ∞ H_VH-H 4 9 5 HHVL HHVH TIMING 1 ಬ Ŋ HLVH Ŧ H_V D5 5

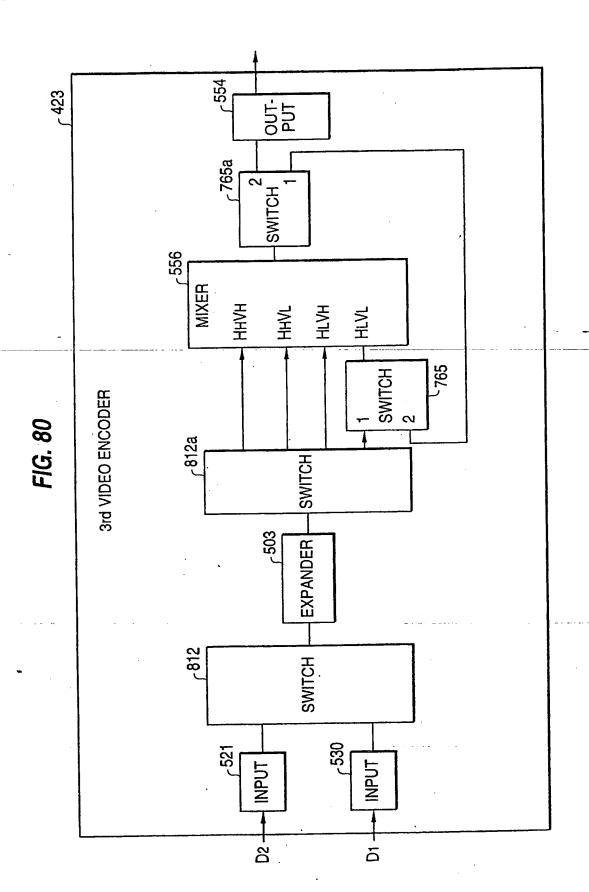


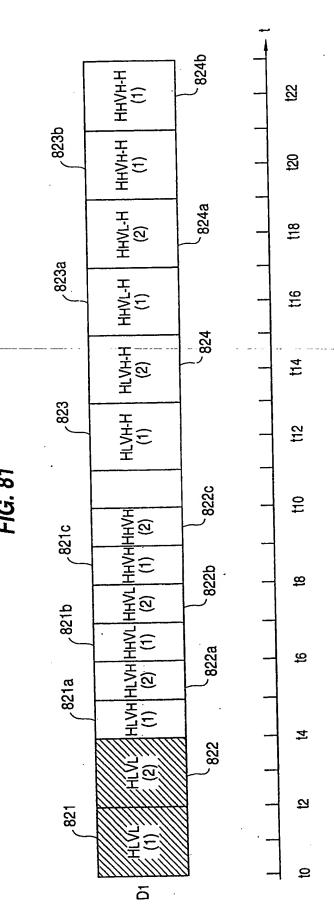




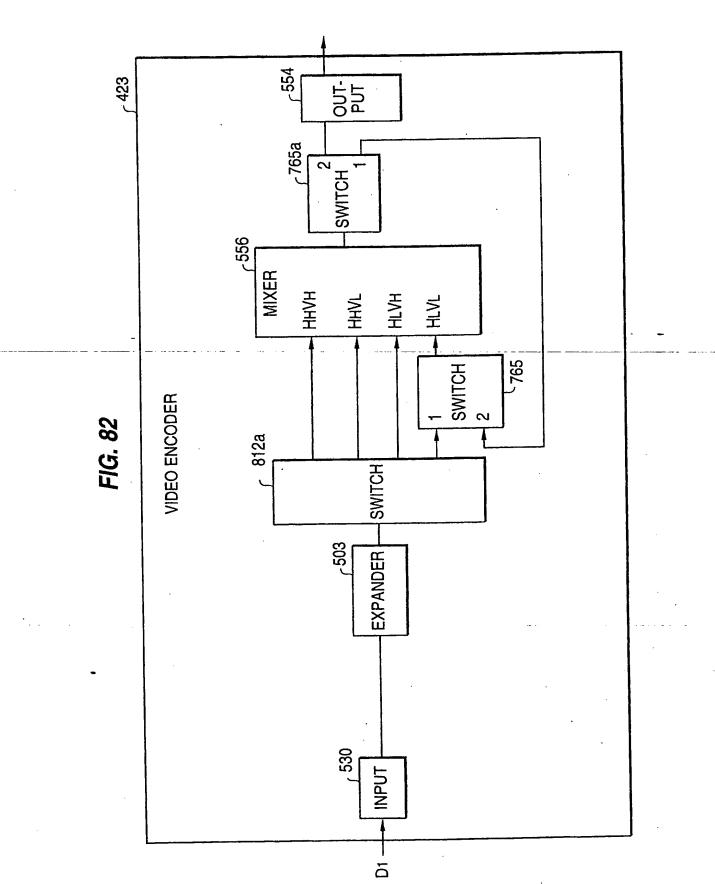




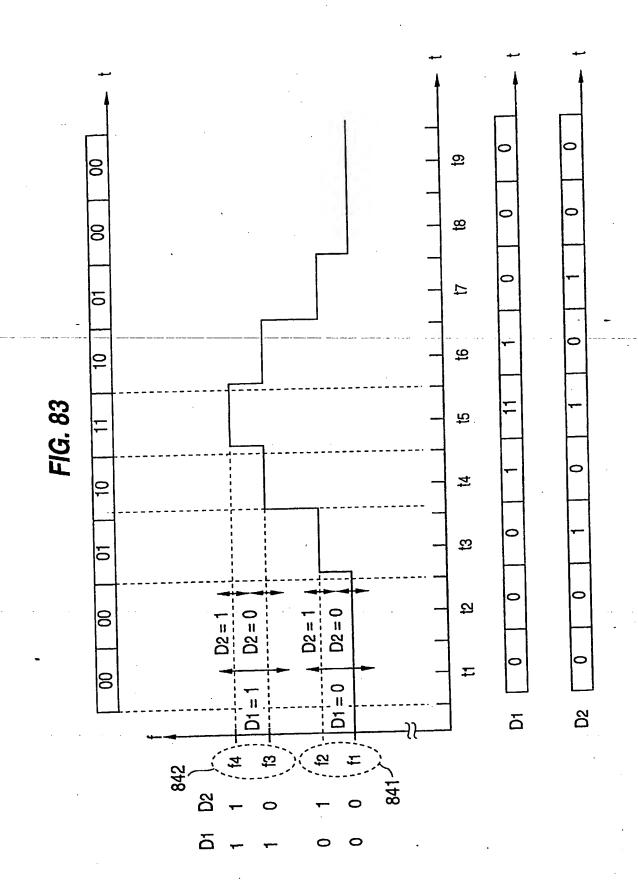


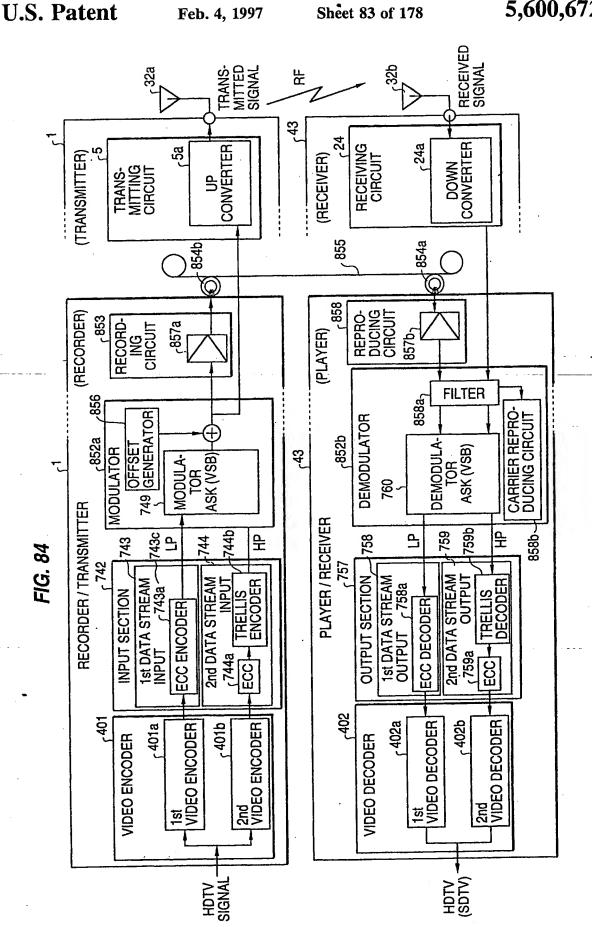


Sheet 80 of 178

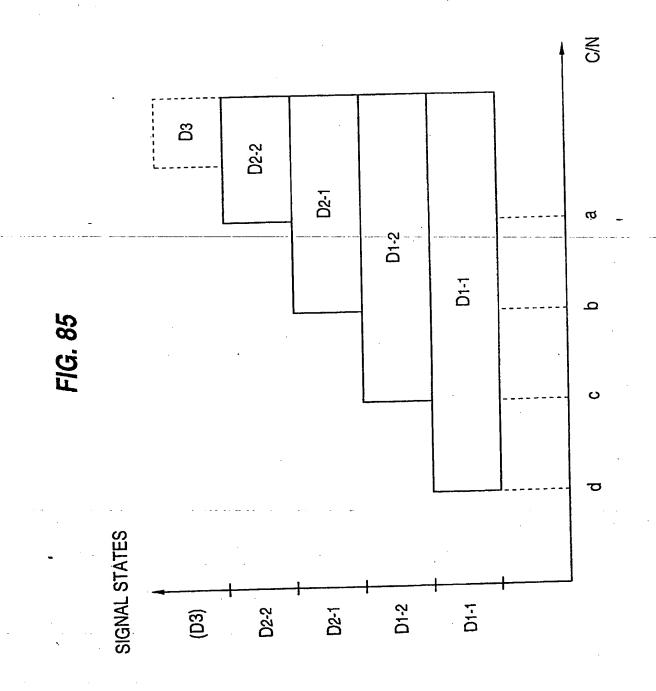


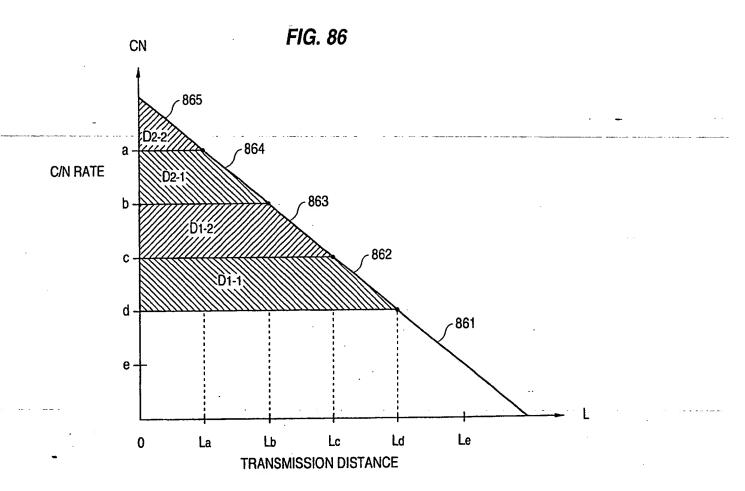
U.S. Patent



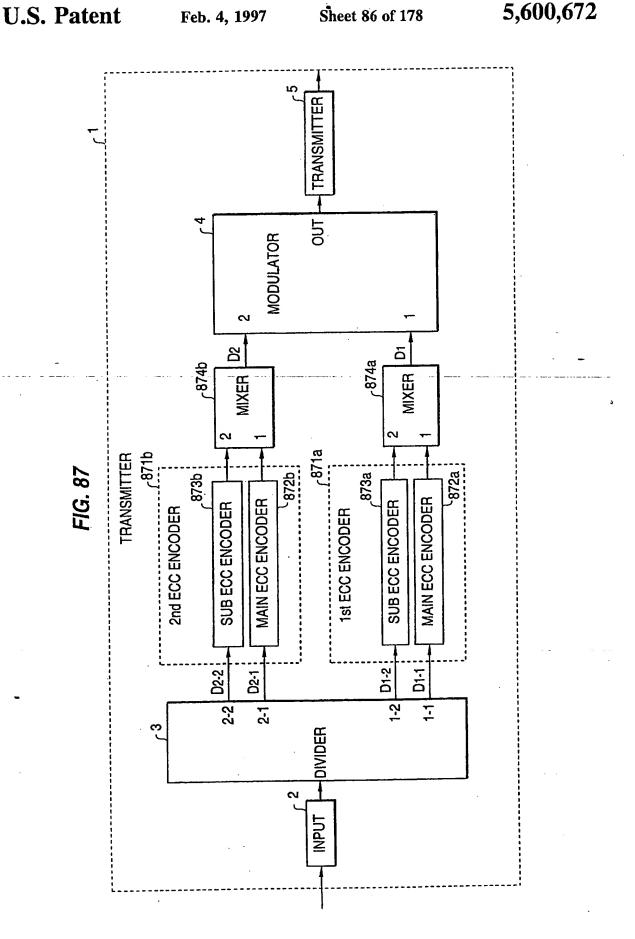


U.S. Patent





Feb. 4, 1997



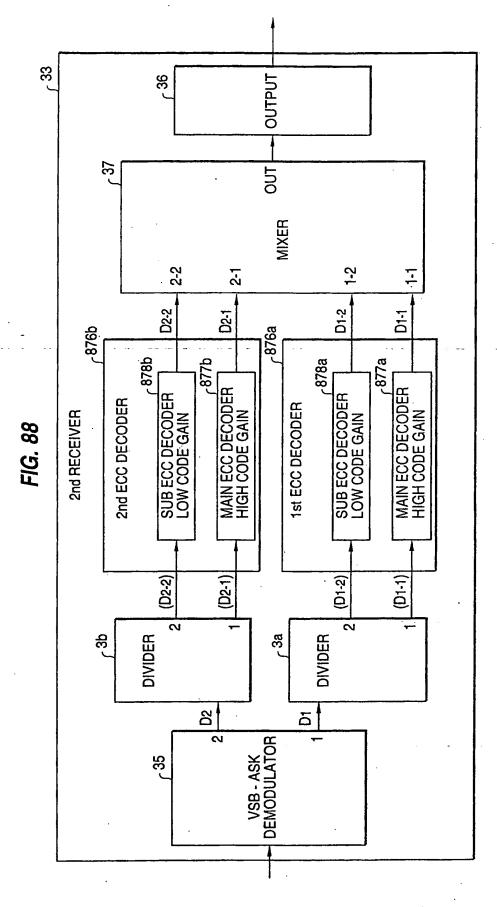
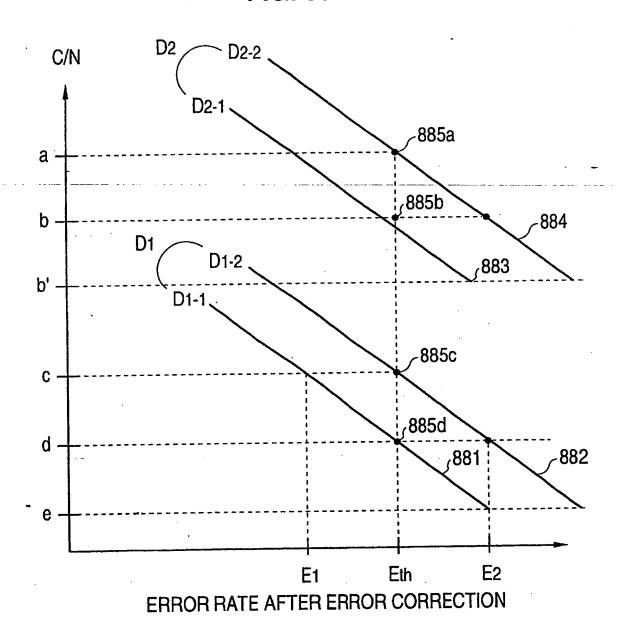
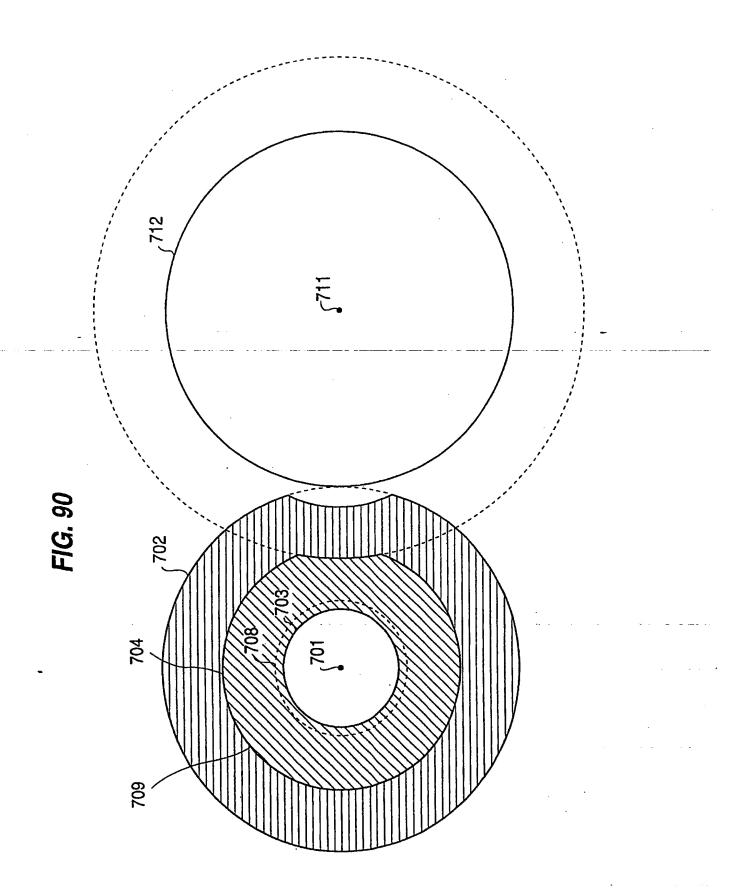


FIG. 89





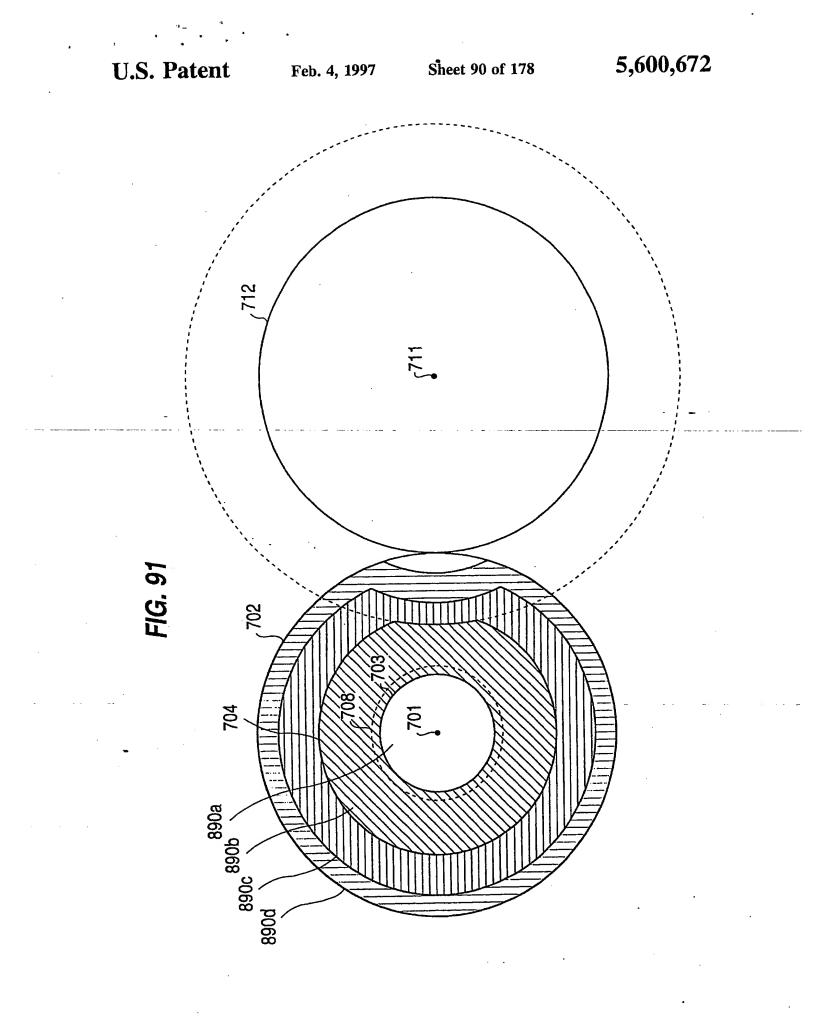
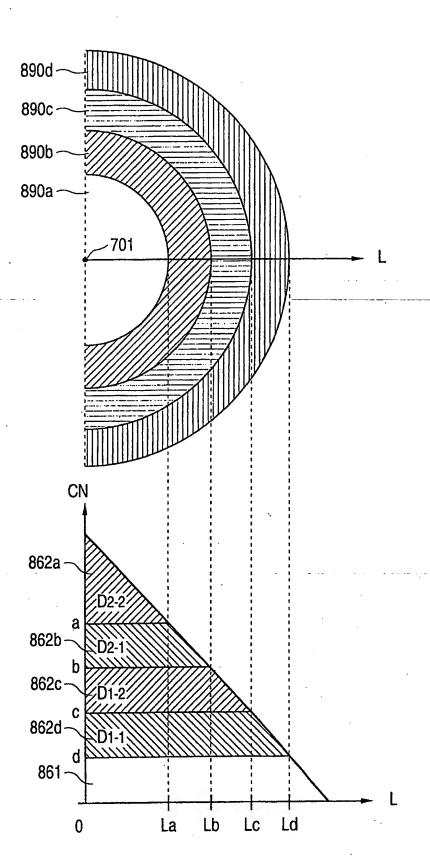
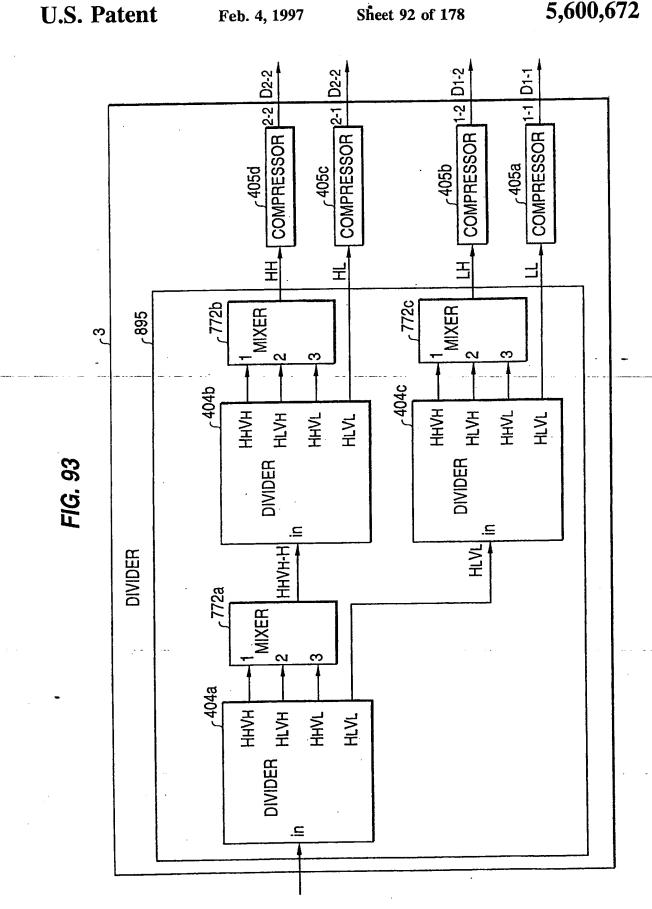


FIG. 92





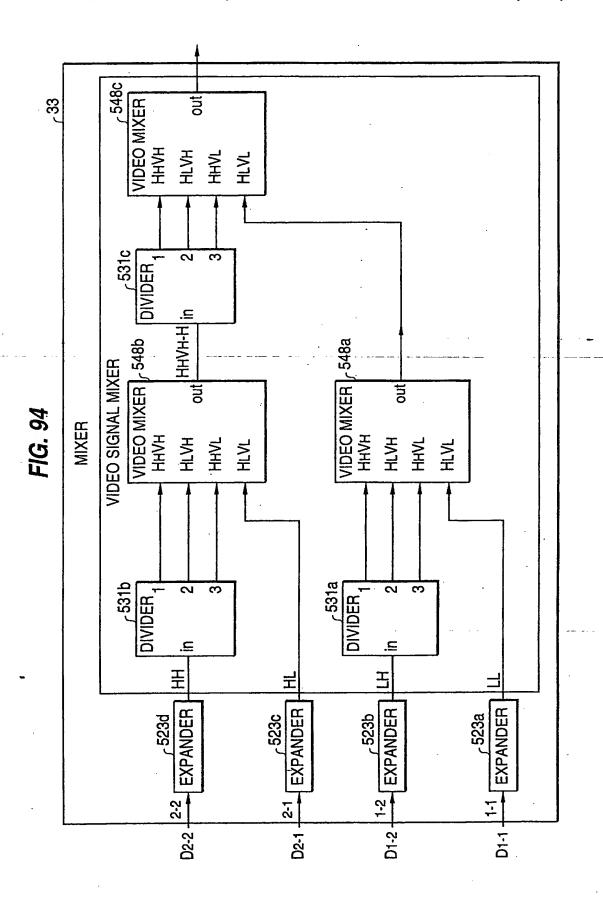
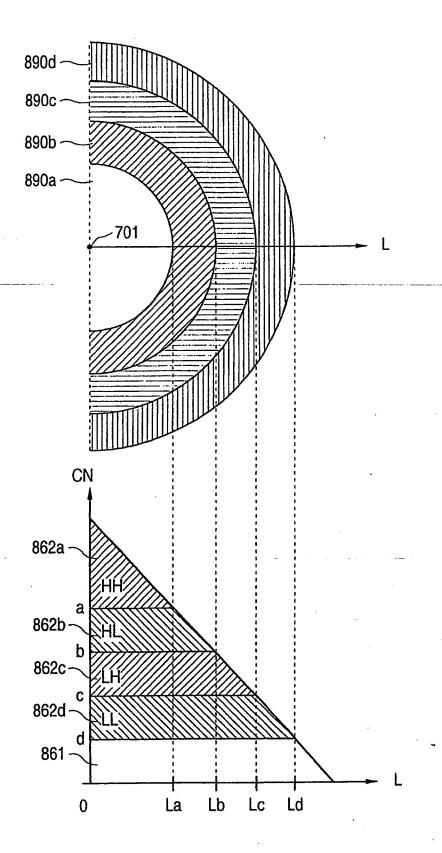
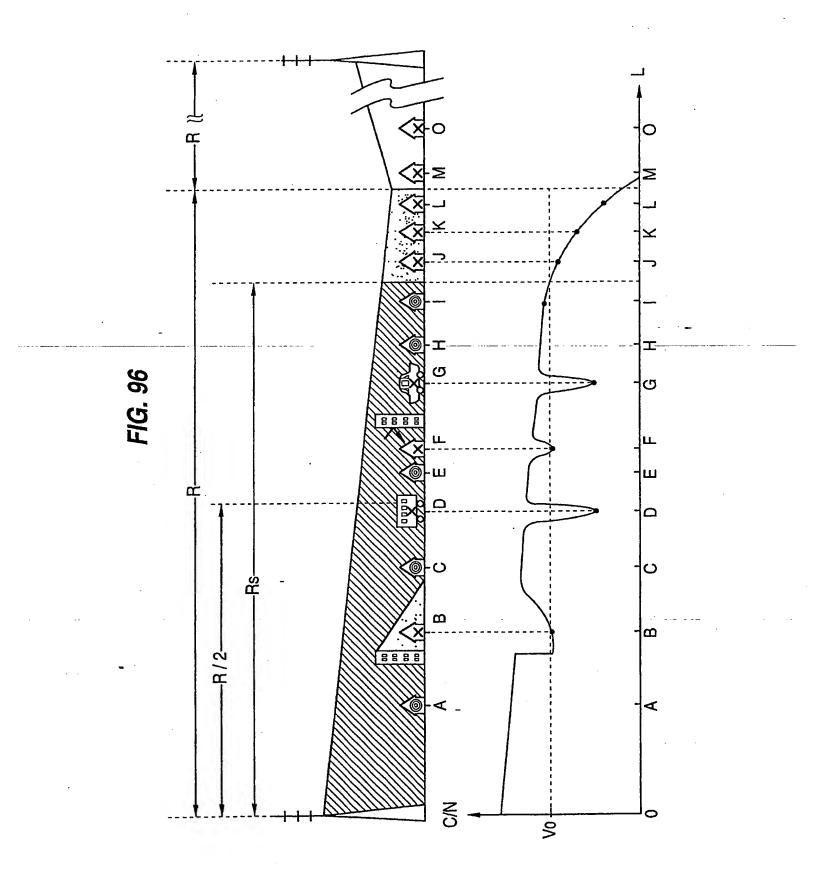


FIG. 95







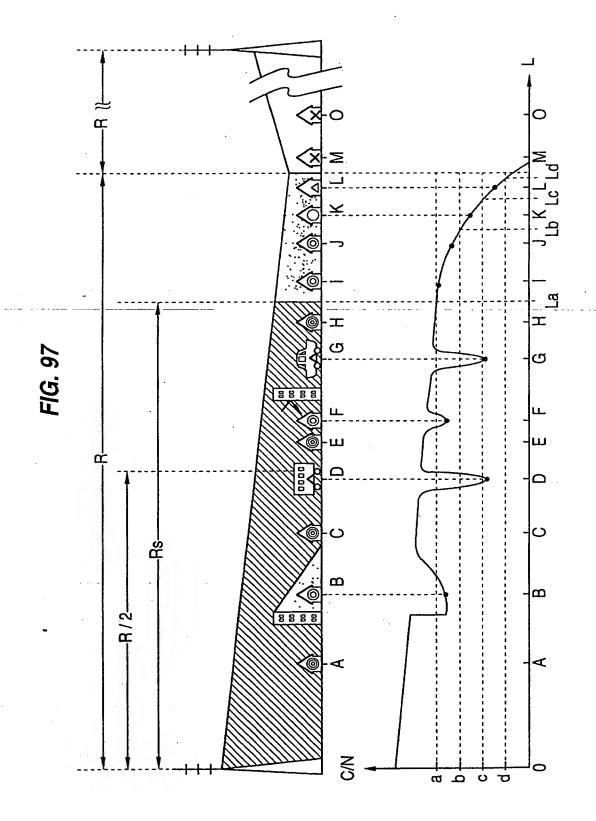


FIG. 98

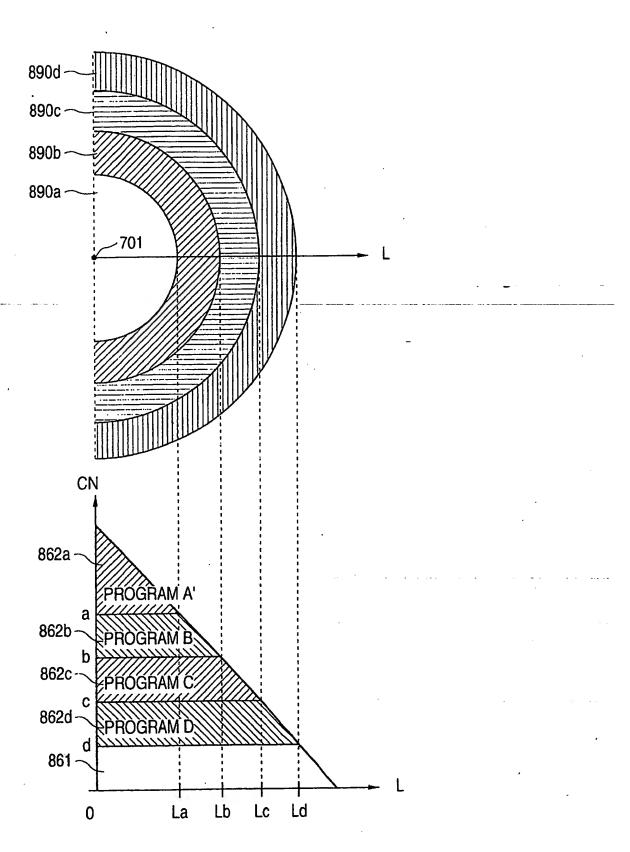


FIG. 99

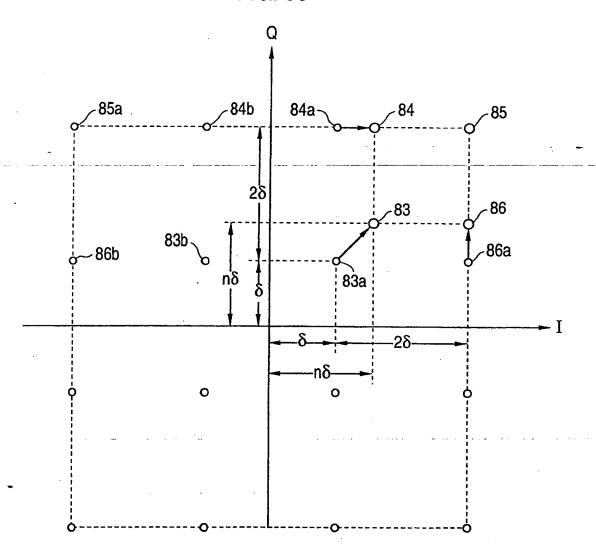


FIG. 100

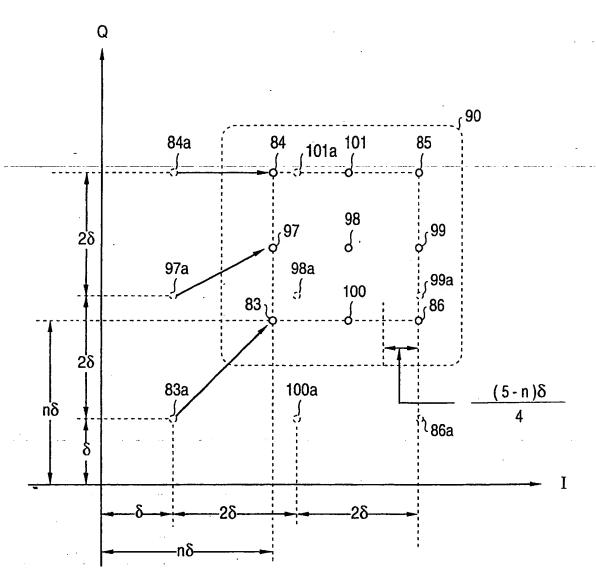


FIG. 101

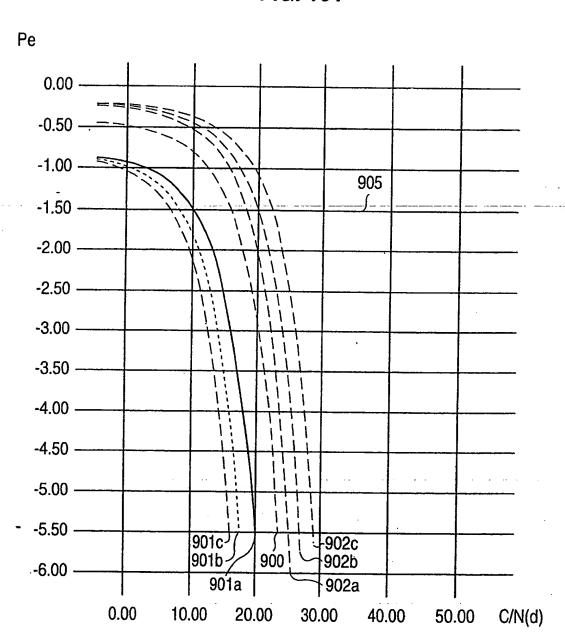


FIG. 102

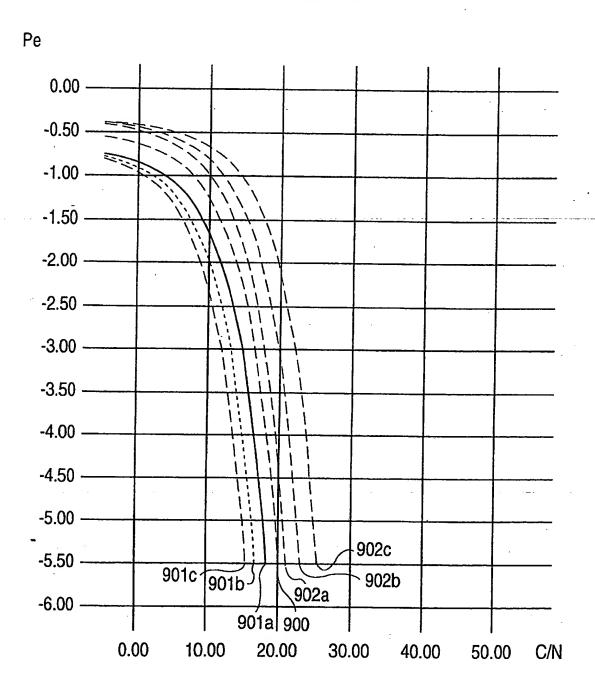


FIG. 103

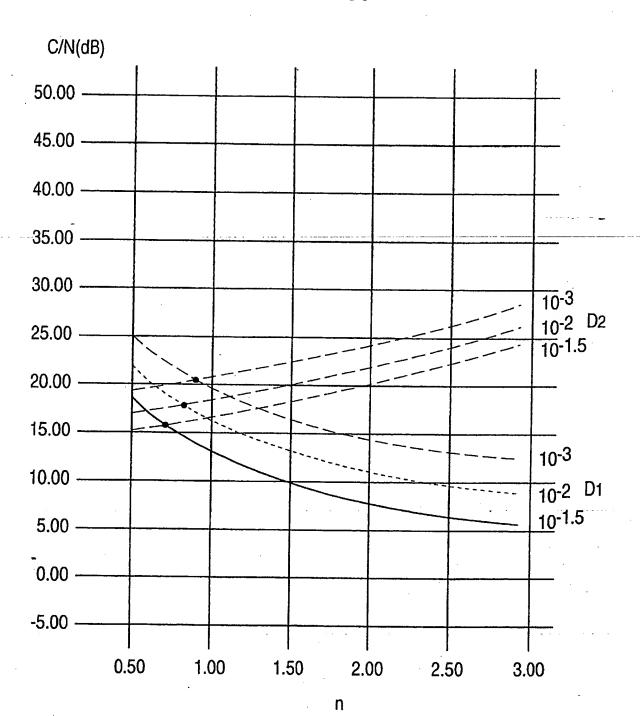
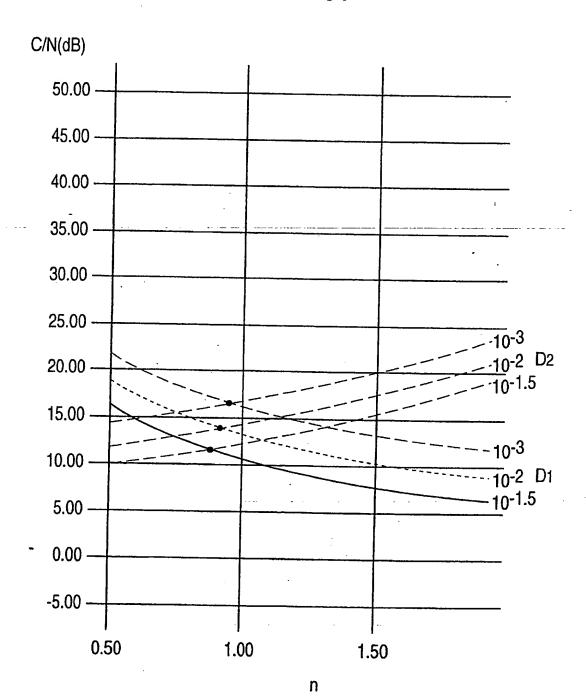
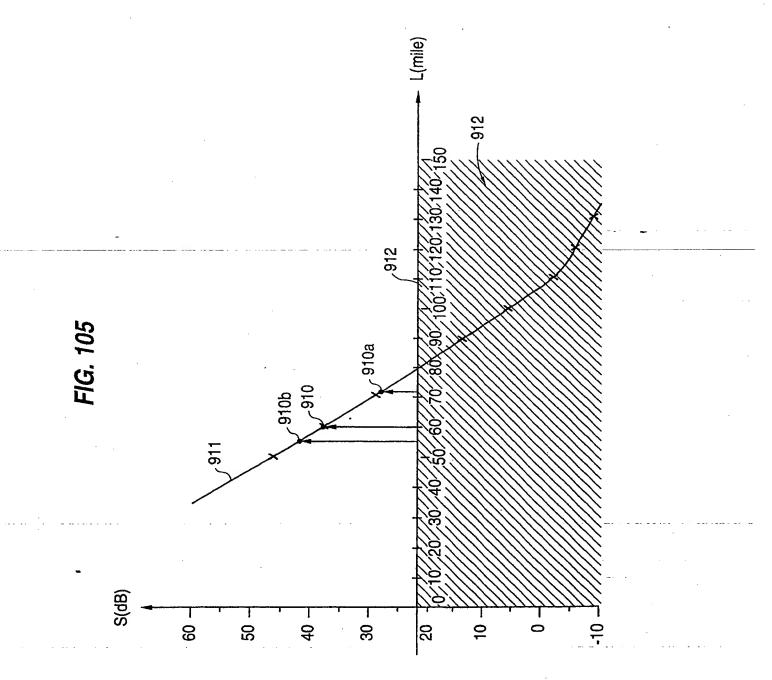
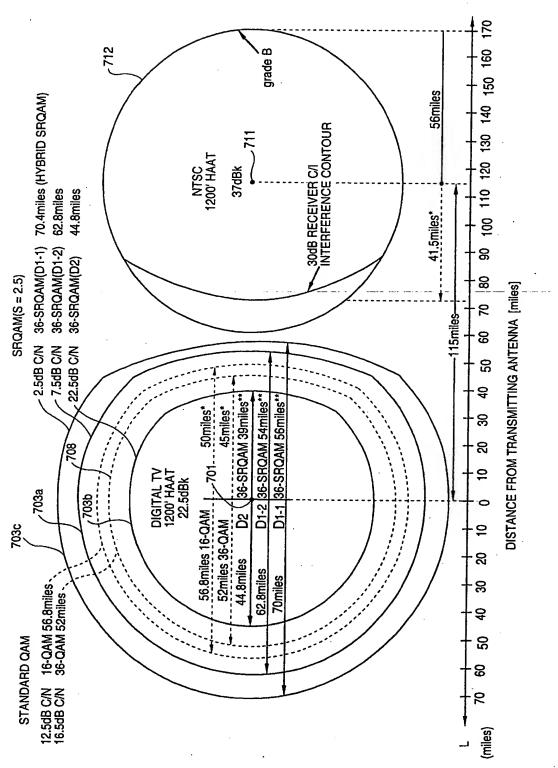


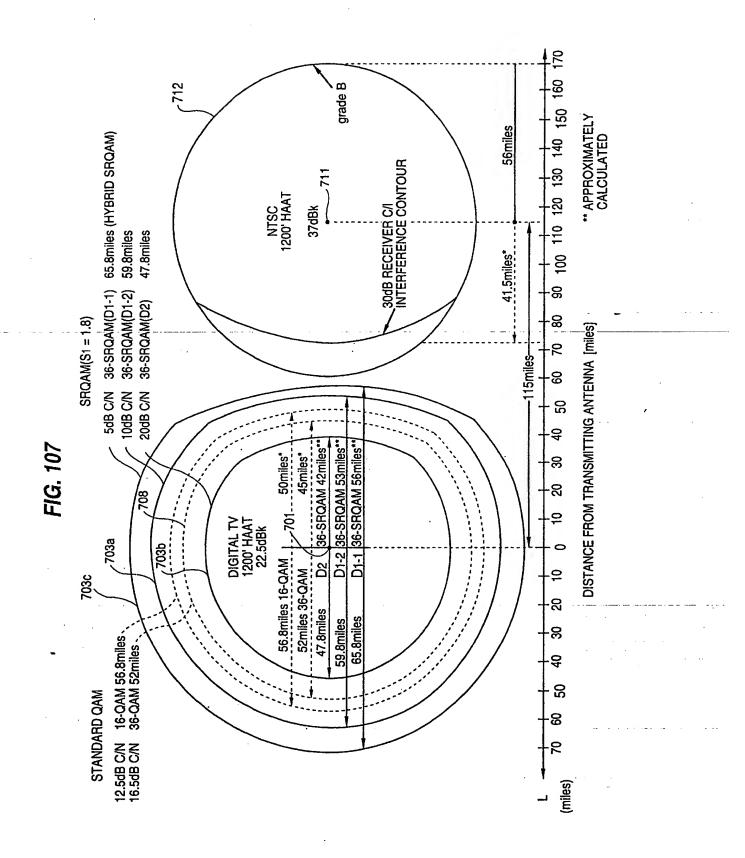
FIG. 104

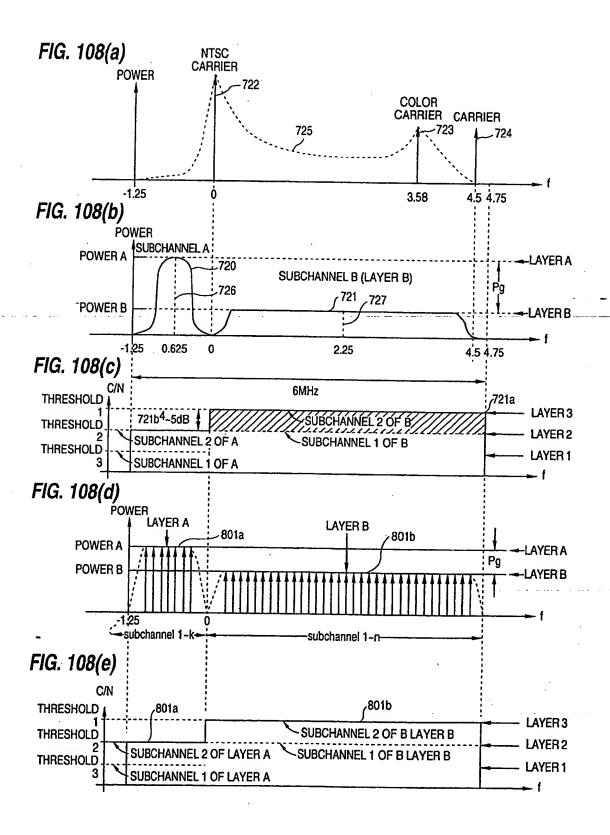


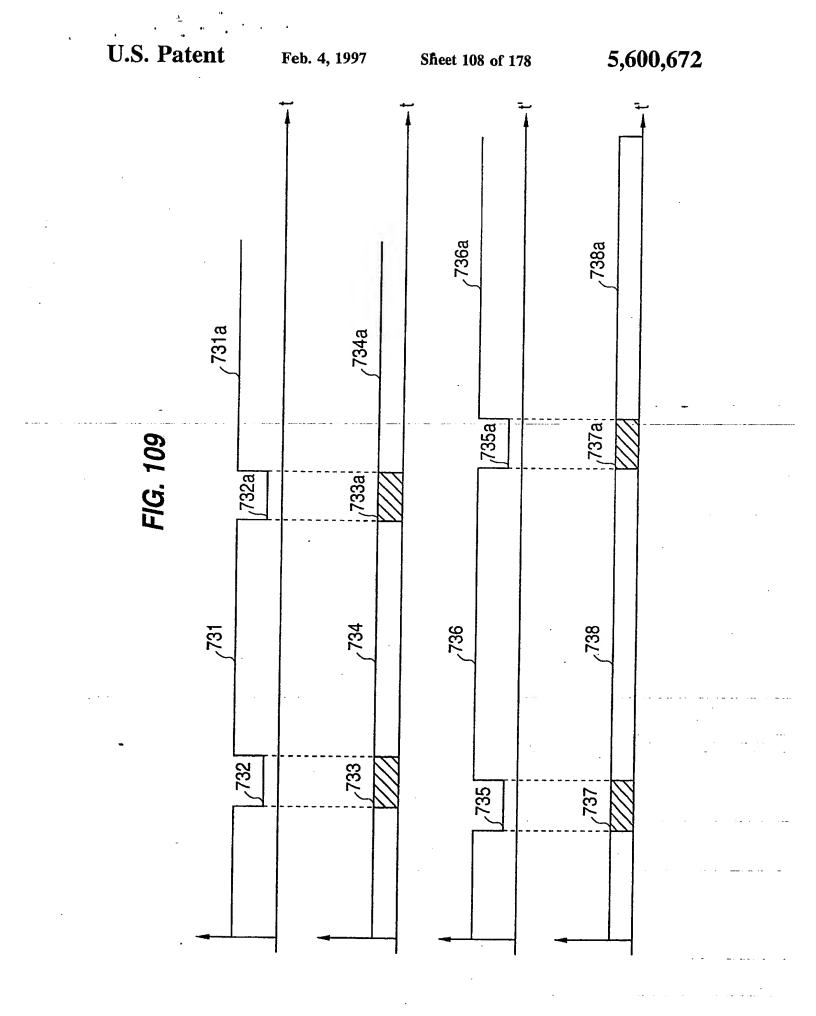


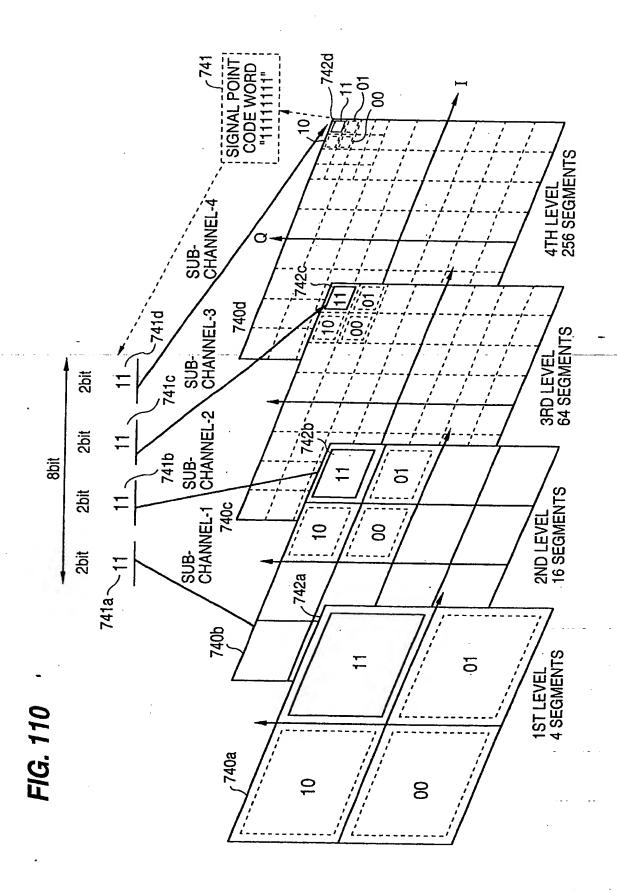












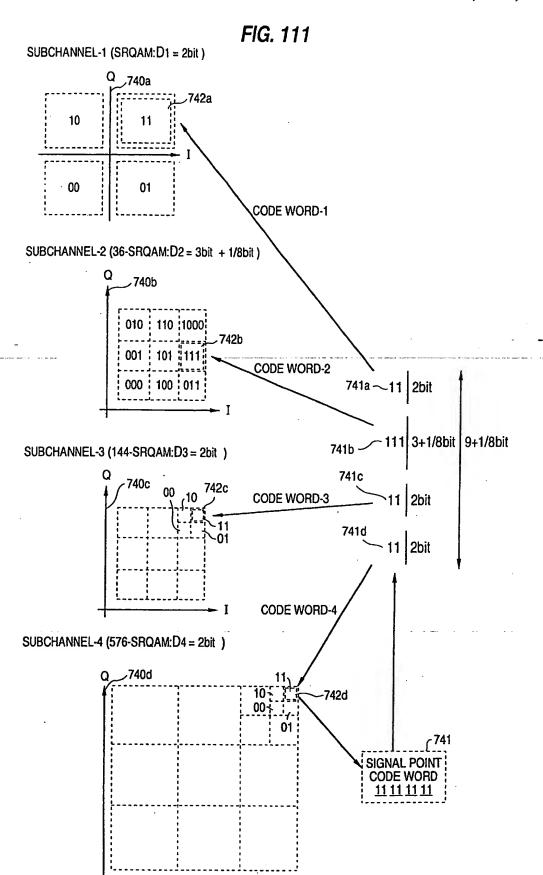
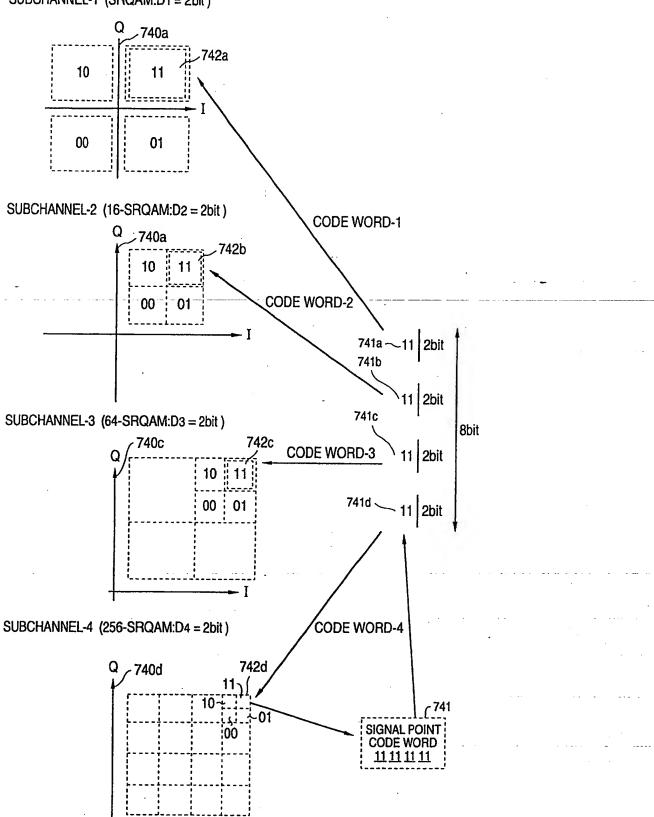


FIG. 112

SUBCHANNEL-1 (SRQAM:D1 = 2bit)



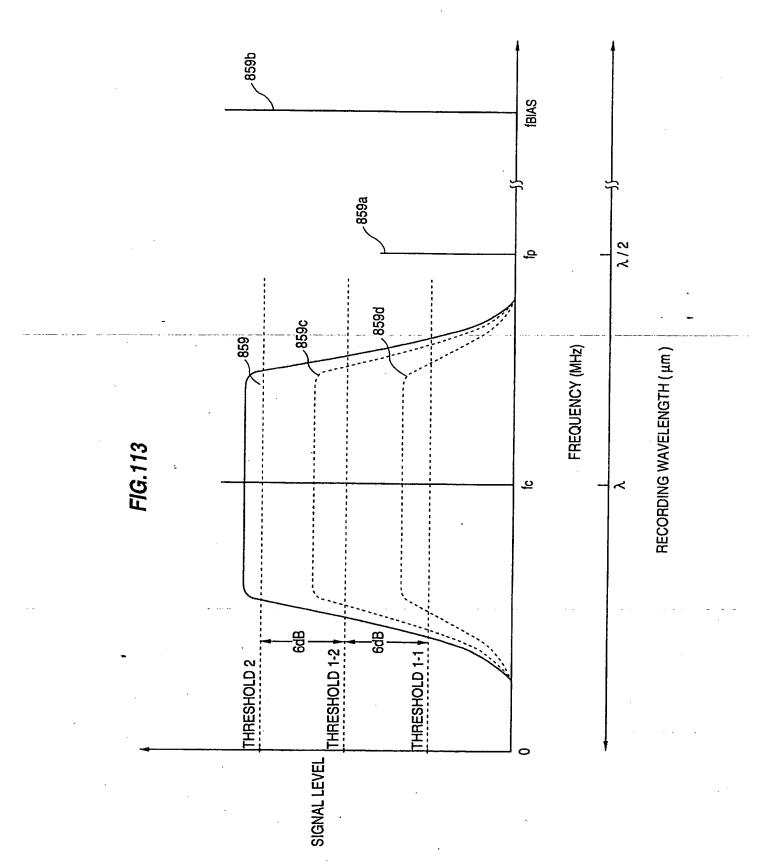
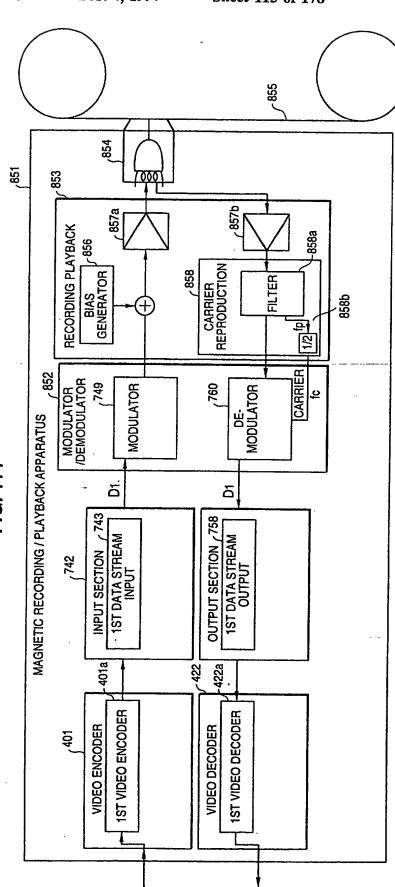
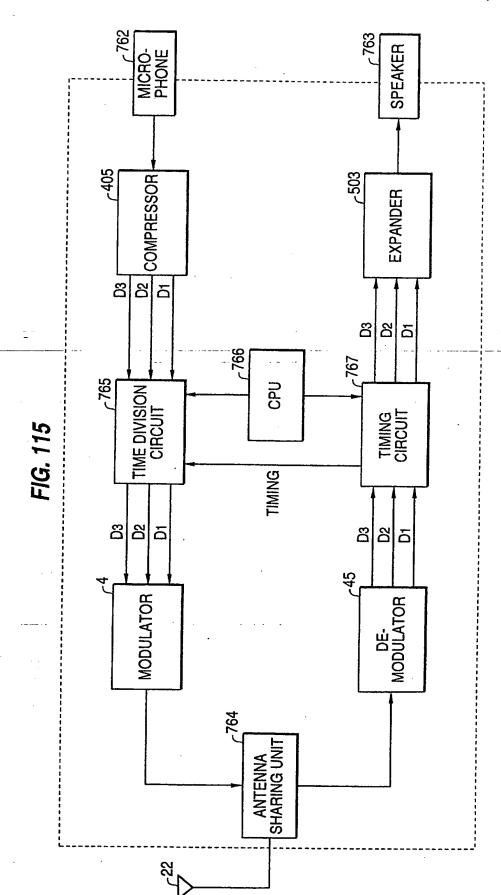
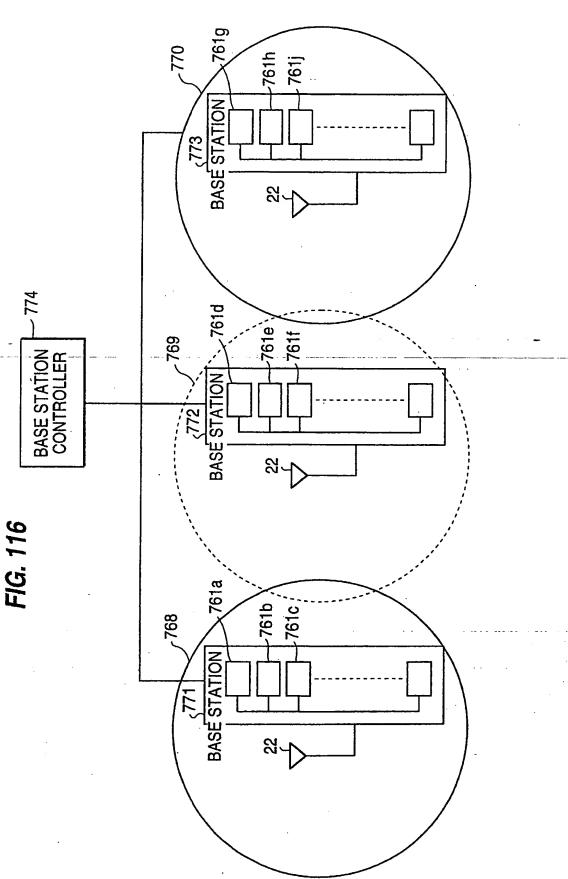
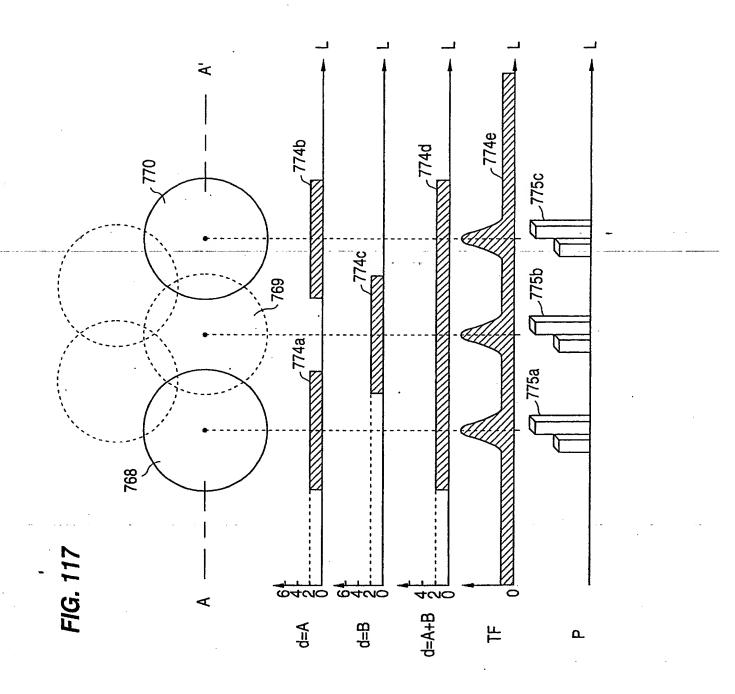


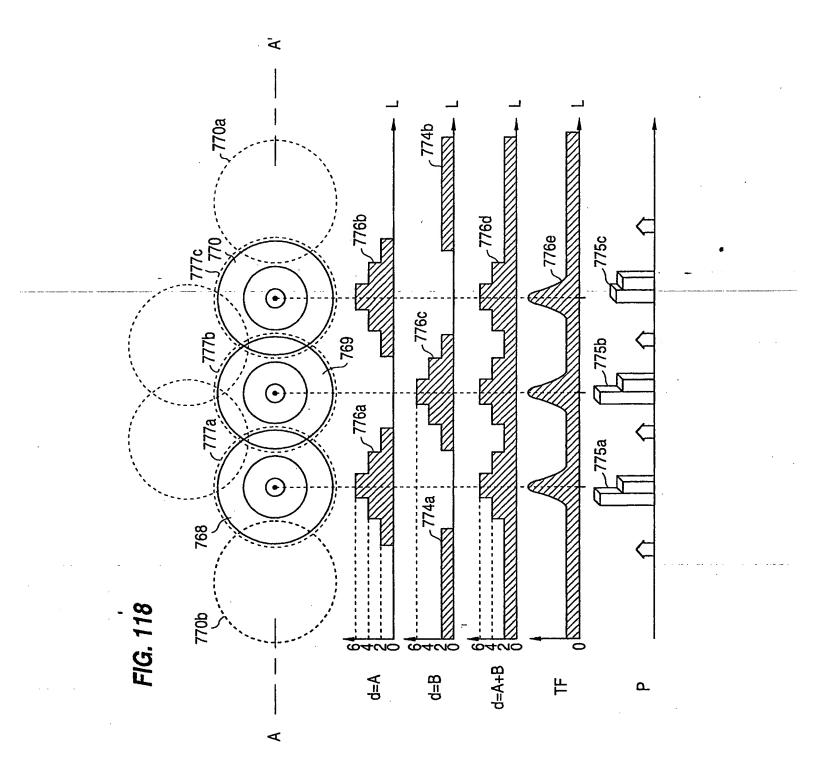
FIG. 114

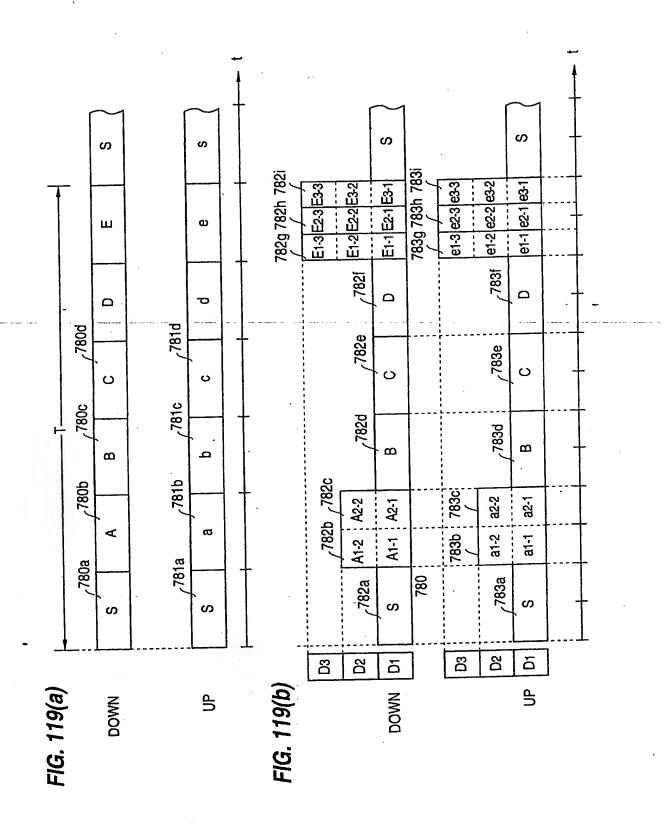


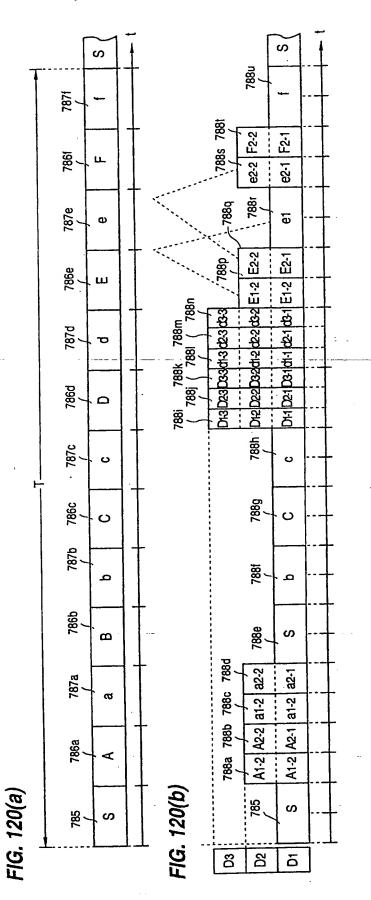


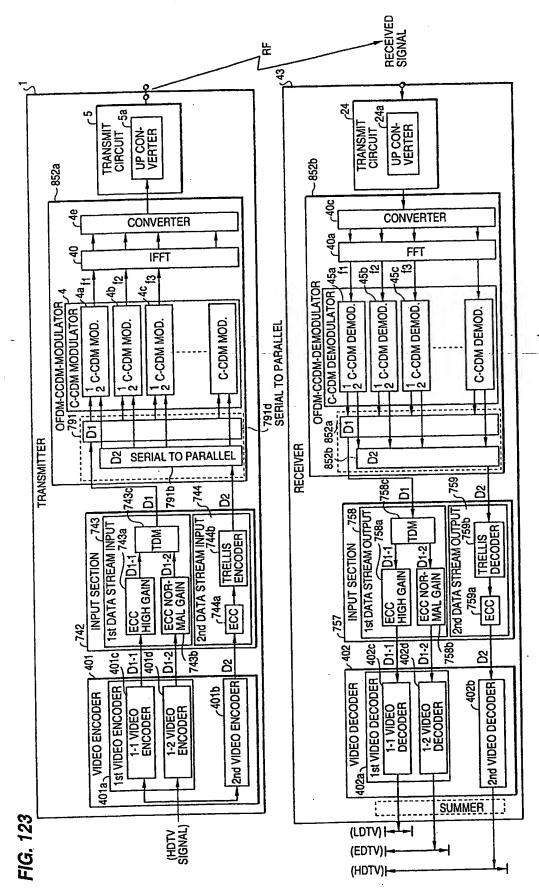


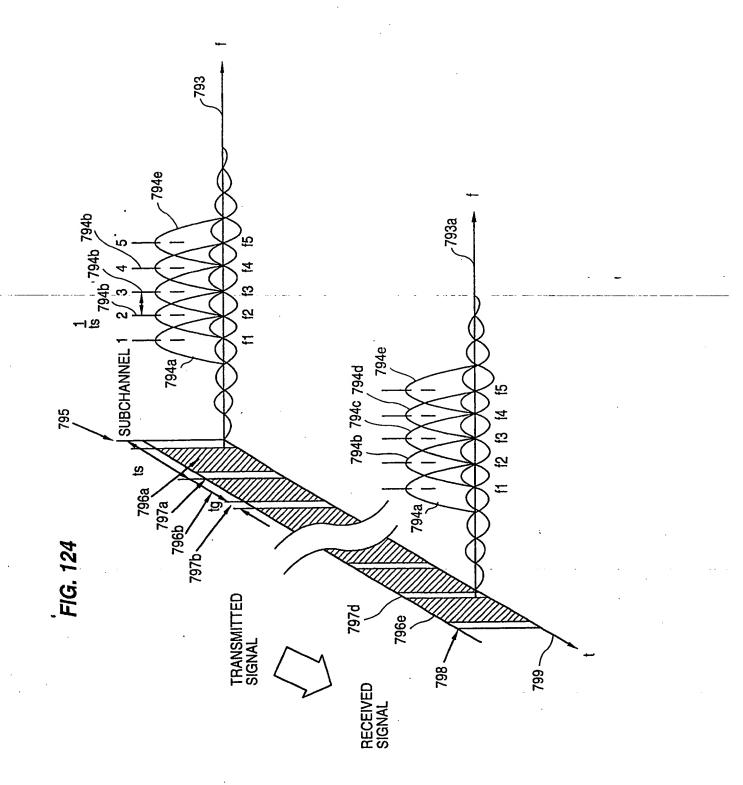


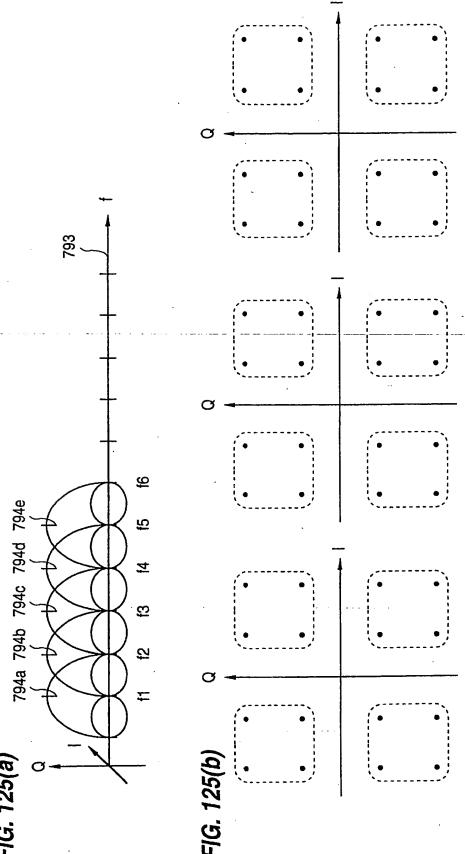


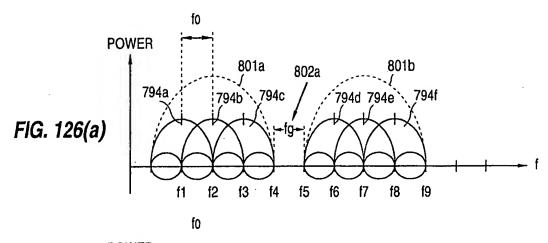


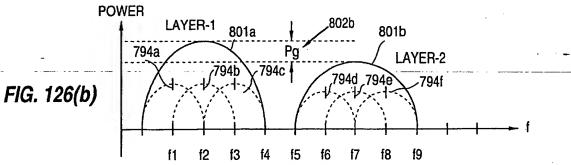


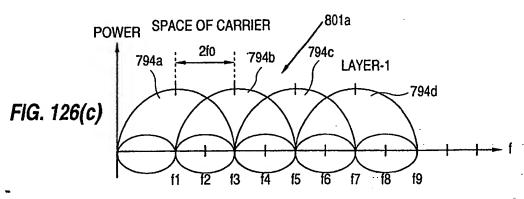


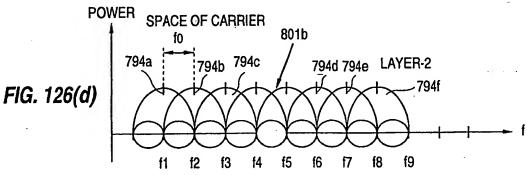












.24a ↑ RECEIVED SIGNAL 쌆 43 UP CONVERTER DOWN CONVERTER CIRCUI 852a **SUMMER DIVIDER** 45b C-CDM MODULATOR C-CDM DEMODULATOR MODULATOR DEMODULATOR C-CDM MOD. C-CDM MOD. C-CDM MOD. C-CDM DEMOD. C-CDM DEMOD. C-CDM DEMOD. C-CDM MOD. TRANSMITTER RECEIVER PARALLEL TO SERIAL CONVERTER SERIAL TO PARALLEL CONVERTER 743c .743 758 759 1st DATA STREAM INPUT 2nd DATA STREAM INPU ISI DATA STREAM OUTPU **OUTPUT SECTION** INPUT SECTION 2nd DATA STREAM ECC HIGH GAIN ECC HIGH GAIN 401a 40 C 402a 402d 743b 758b 2nd VIDEO ENCODER 1st VIDEO ENCODER 1st VIDEO DECODER 2nd VIDEO DECODER VIDEO ENCODER VIDEO DECODER 1-1 VIDEO ENCODER 1-2 VIDEO ENCODER 1-2 VIDEO DECODER 1-1 VIDEO DECODER (LDTV) (EDTV) (HDTV)

FIG. 12

FIG. 128(a)

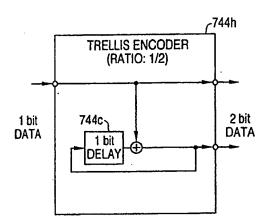


FIG. 128(d)

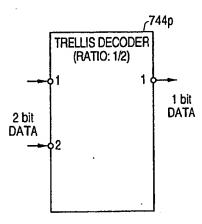


FIG. 128(b)

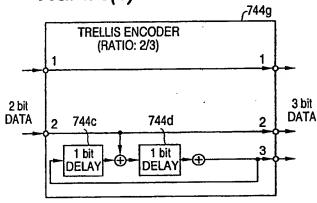


FIG. 128(e)

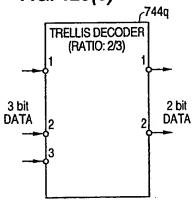


FIG. 128(c)

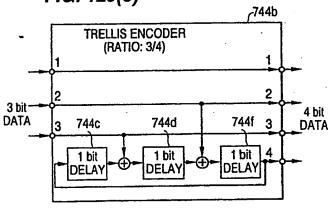
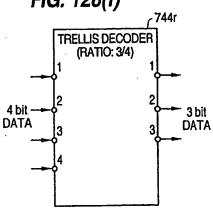
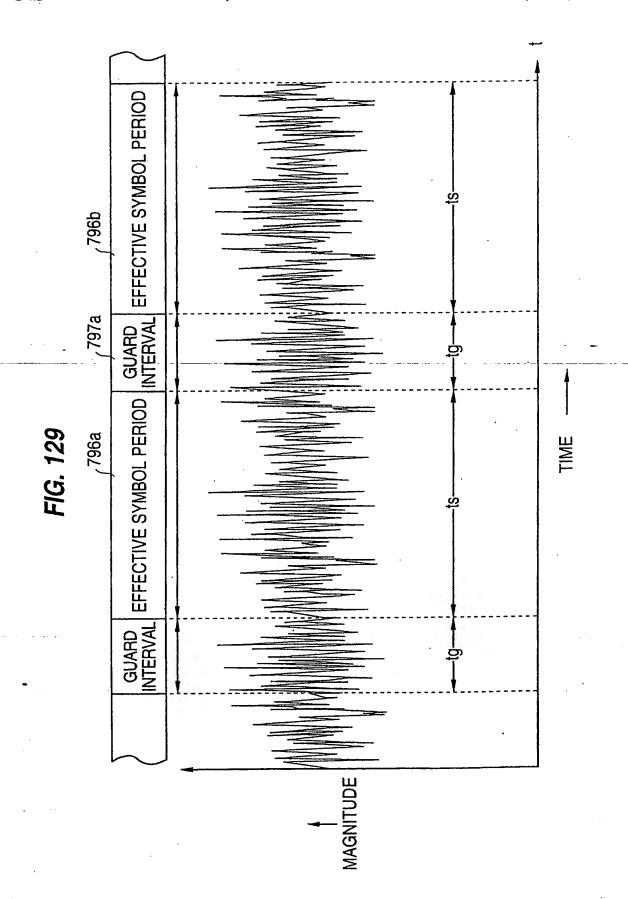
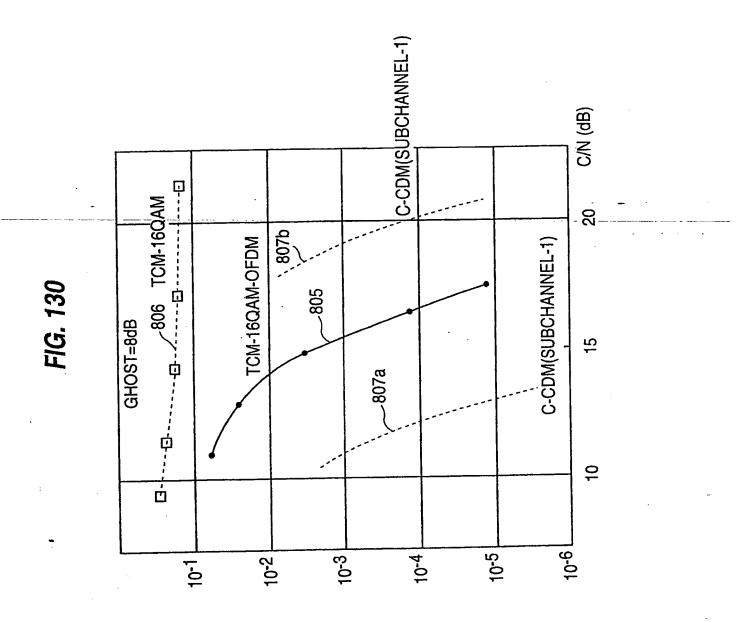


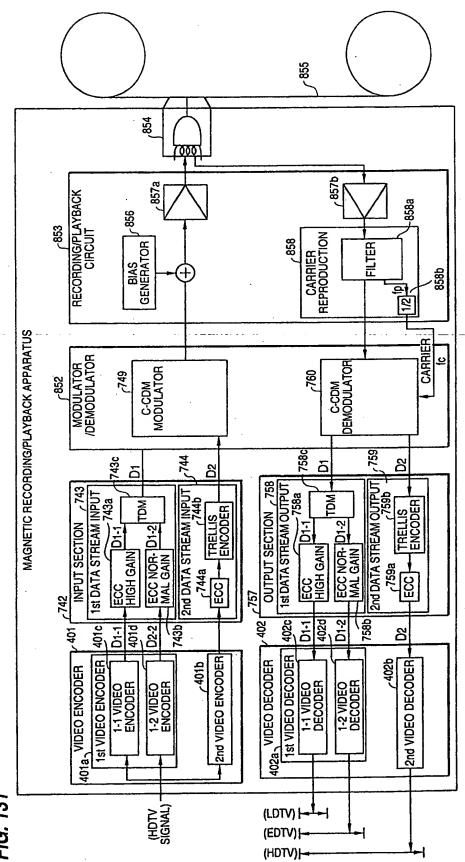
FIG. 128(f)

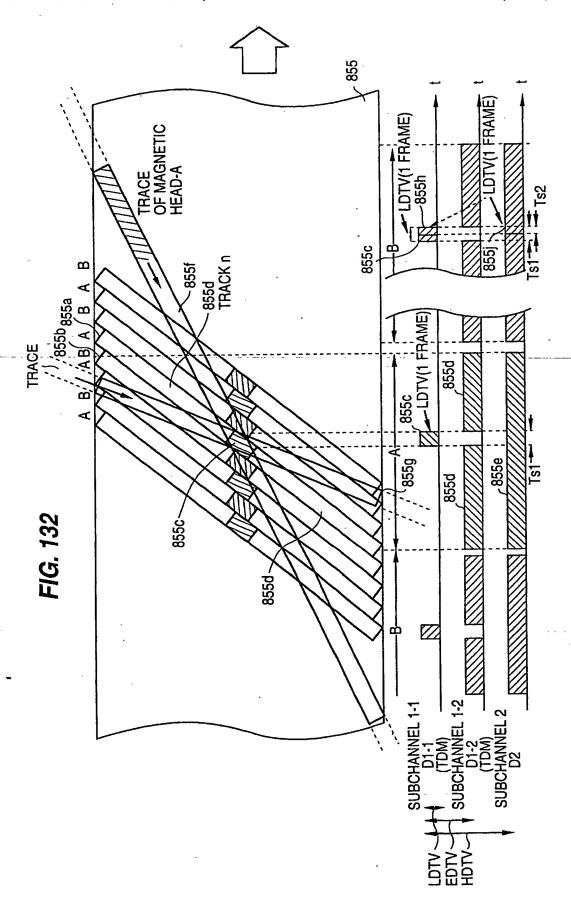


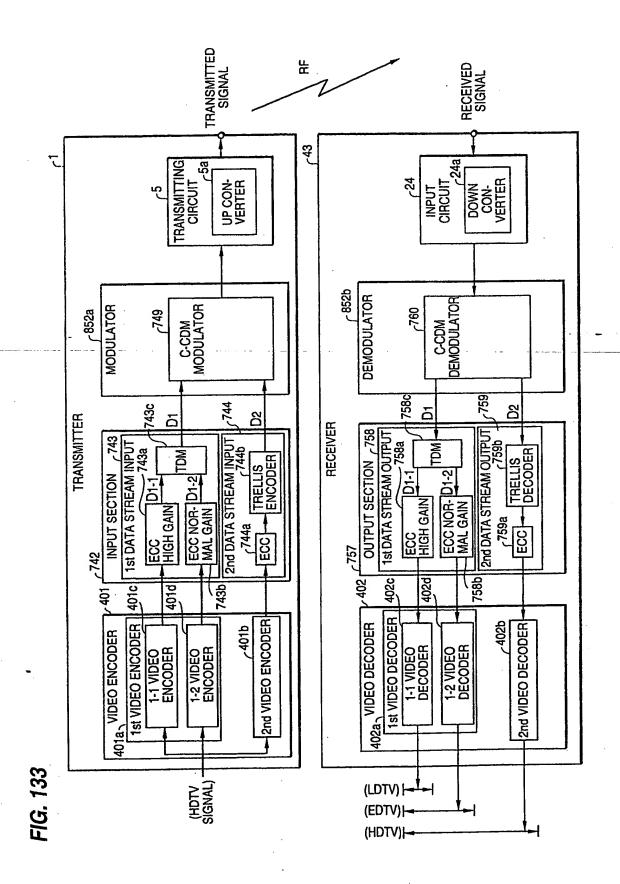




U.S. Patent







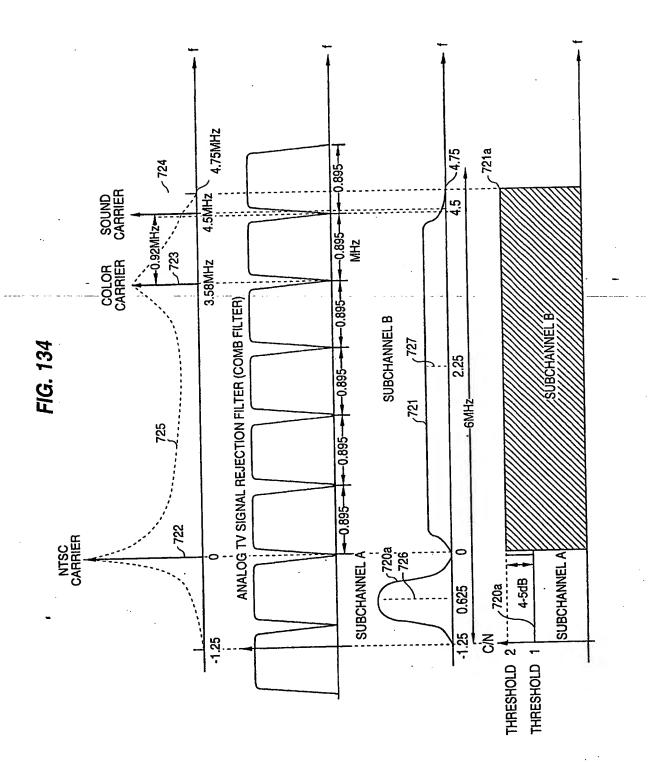
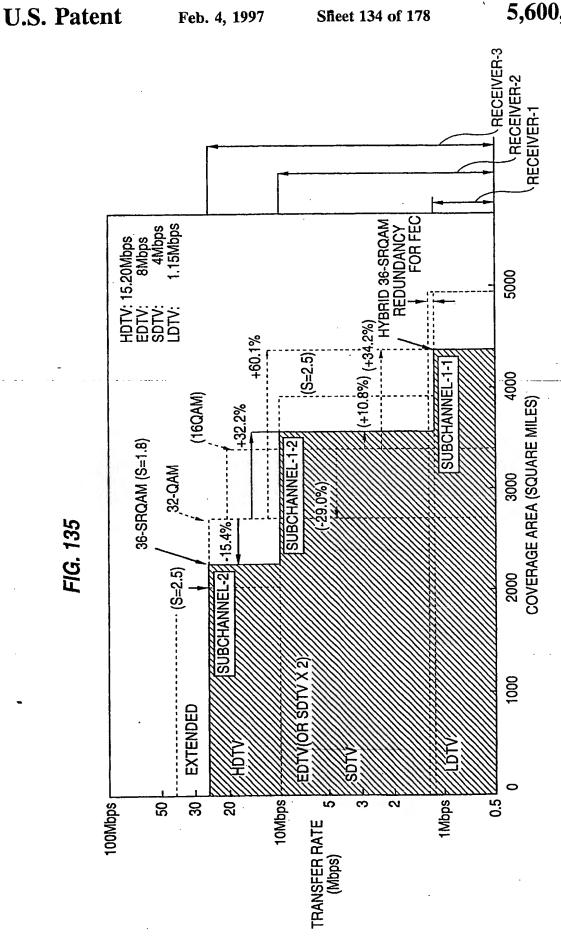
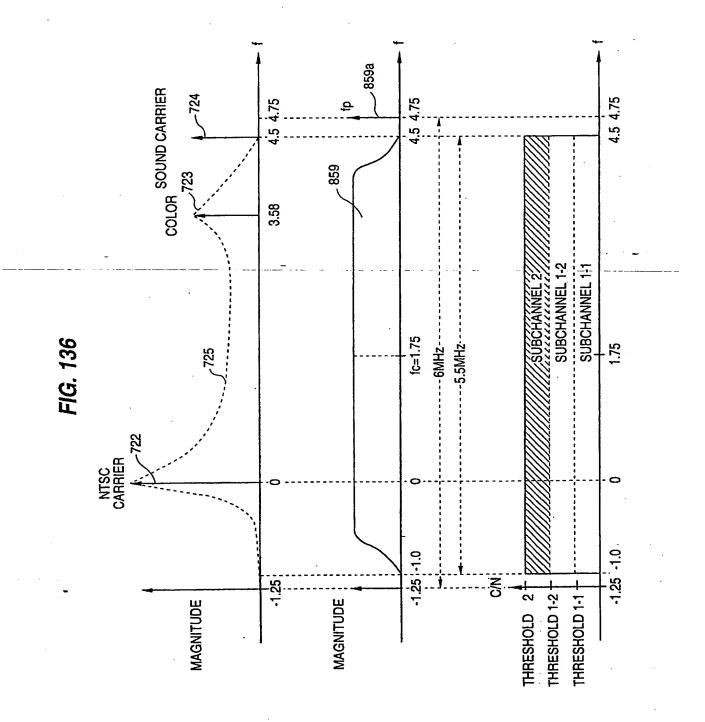


FIG. 135





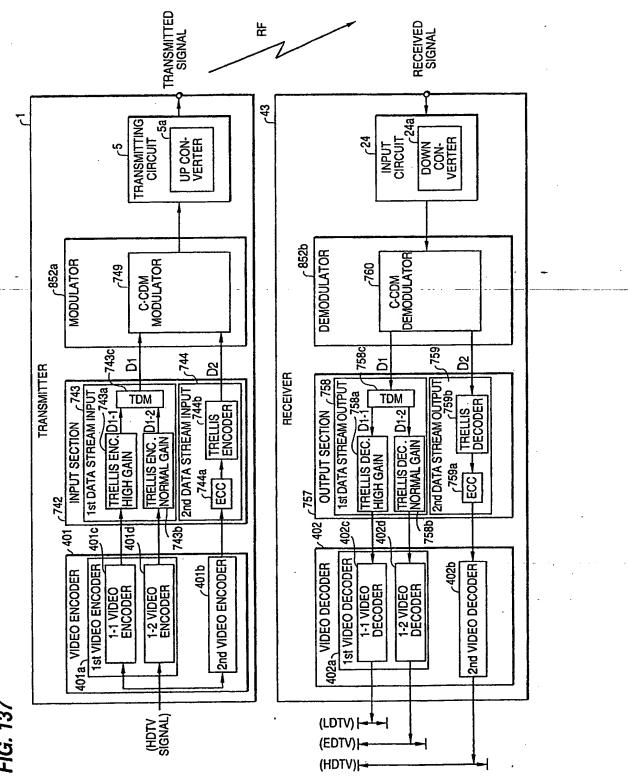


FIG. 137

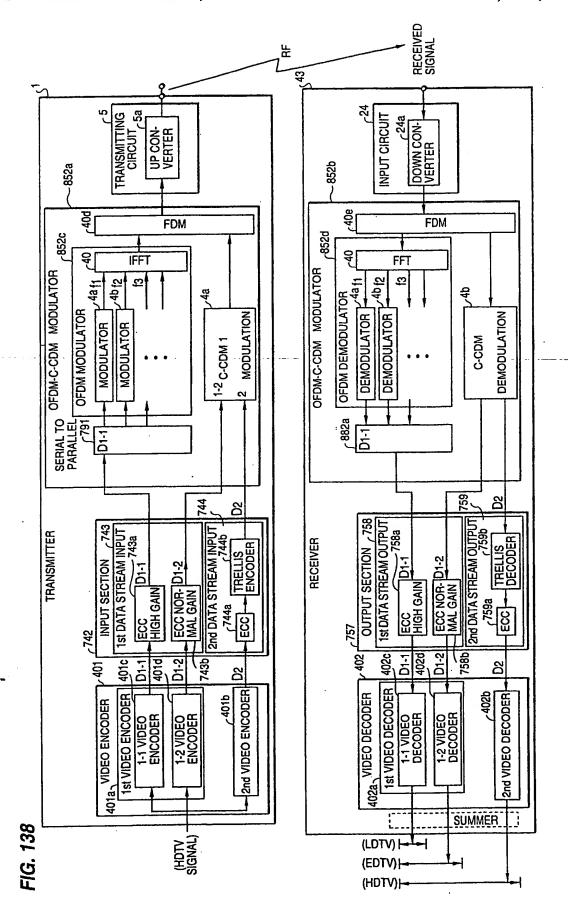


FIG. 139

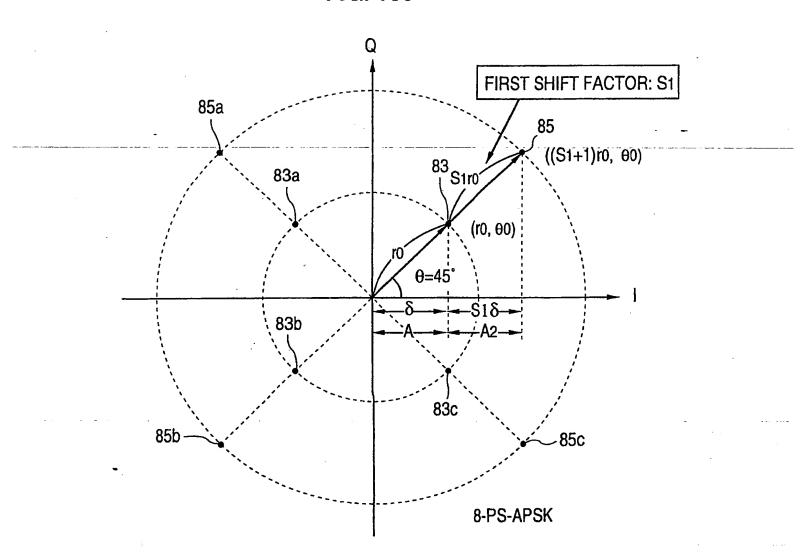


FIG. 140

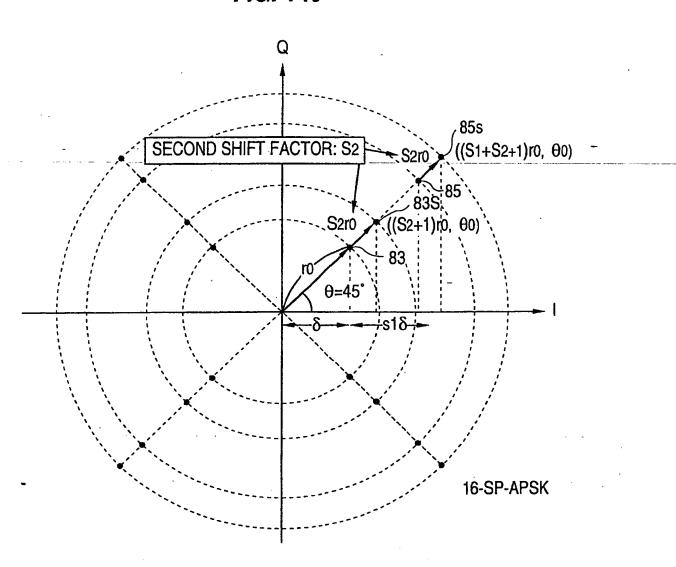


FIG. 141

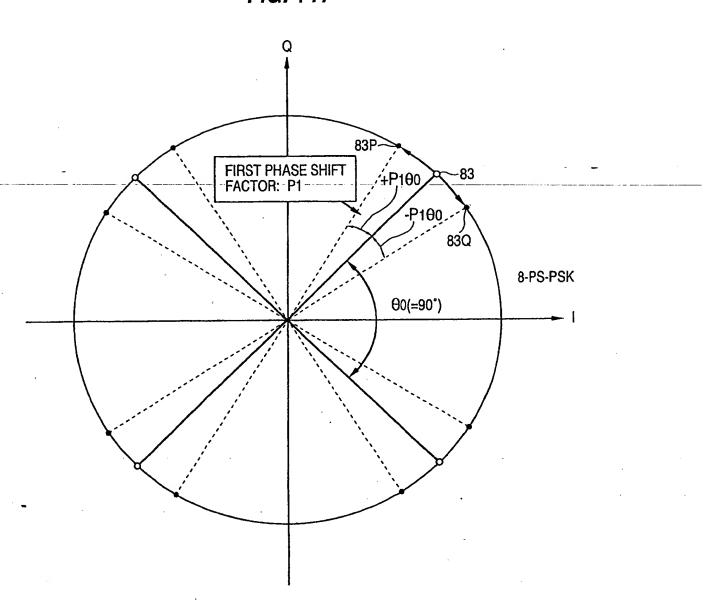
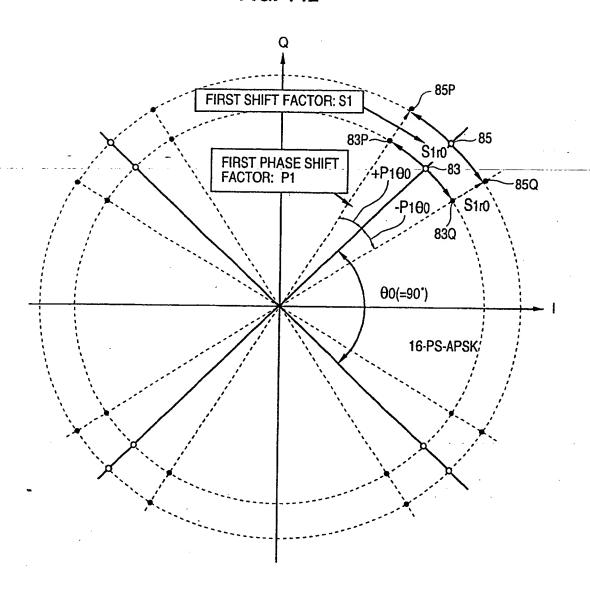
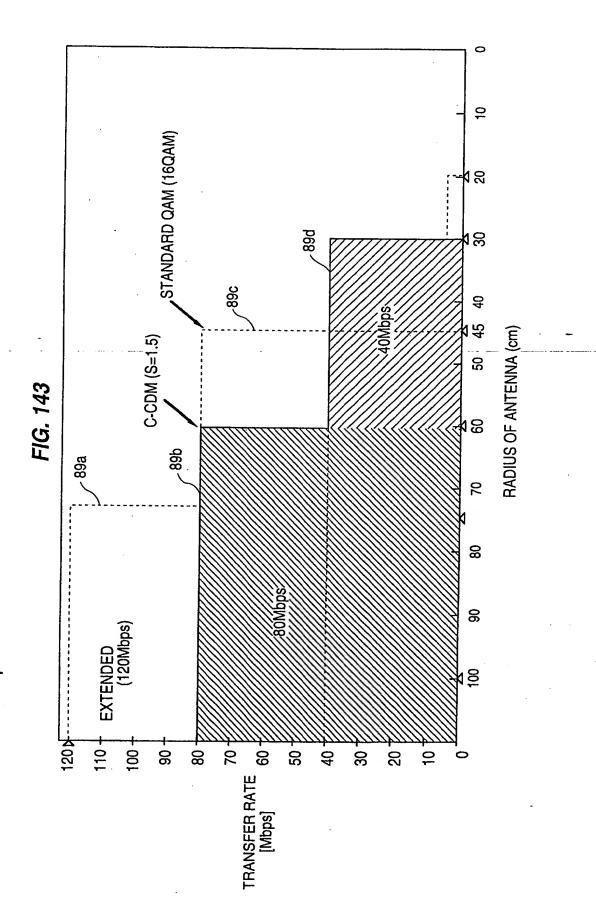


FIG. 142





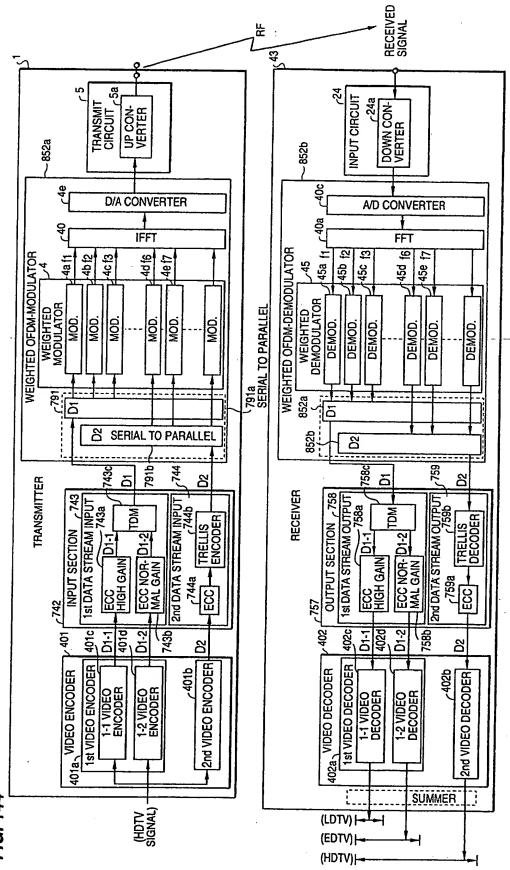


FIG. 144

FIG. 145(a)

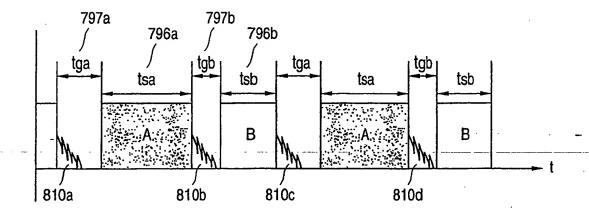
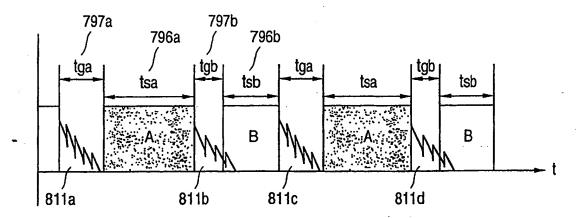
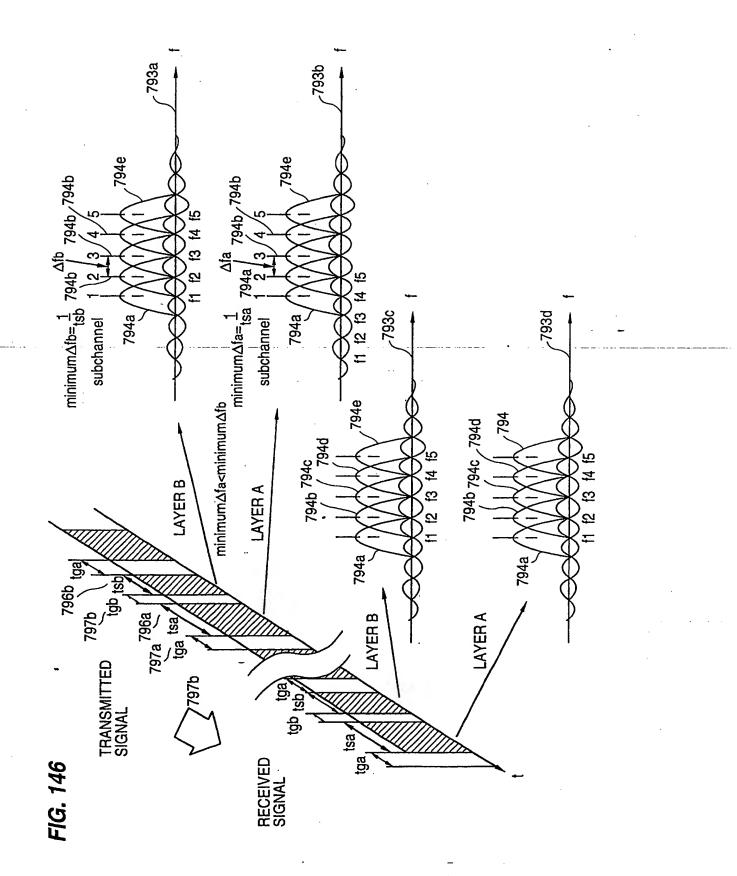
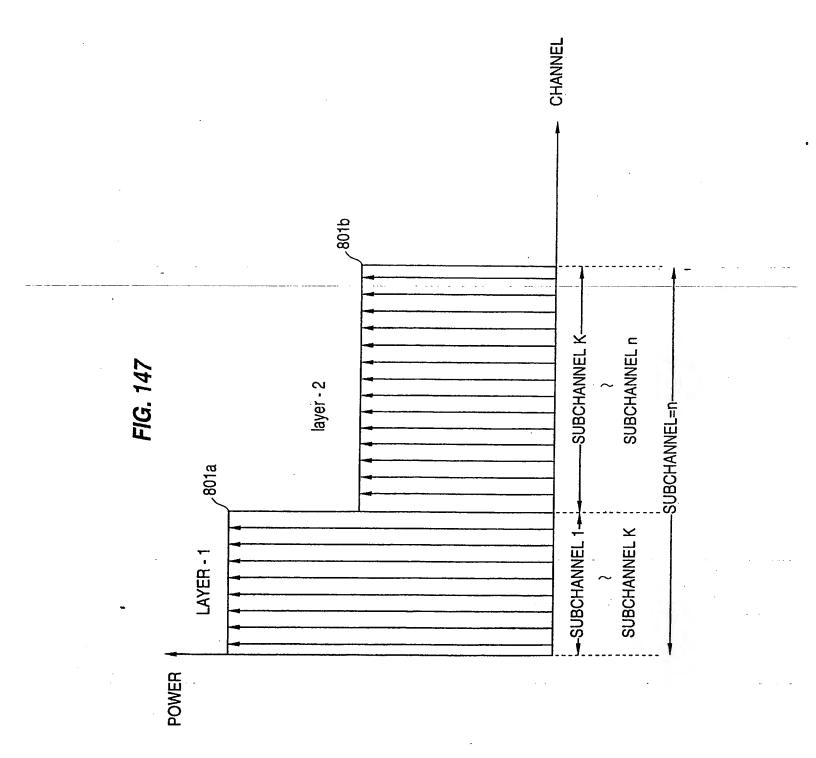
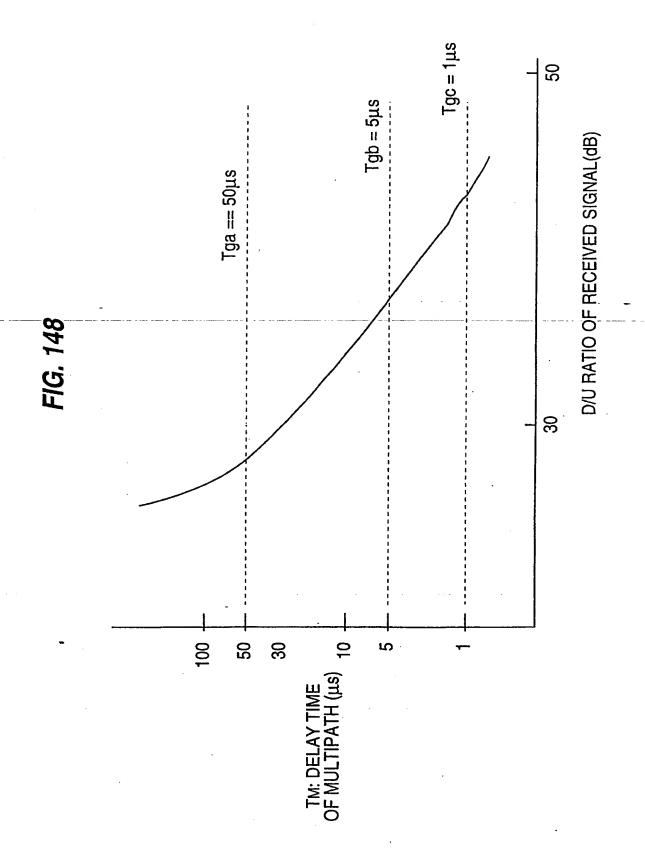


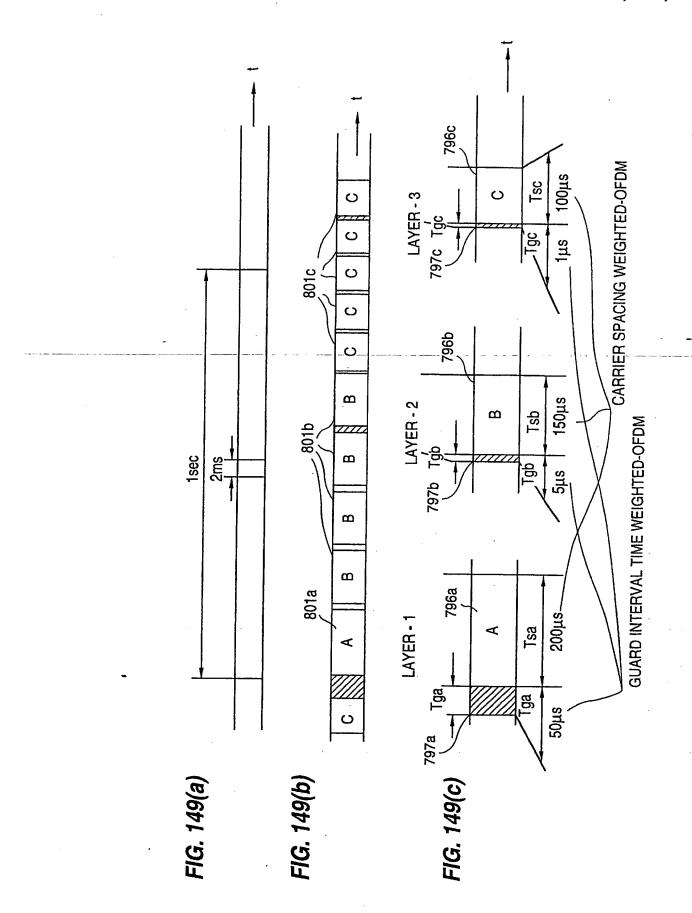
FIG. 145(b)

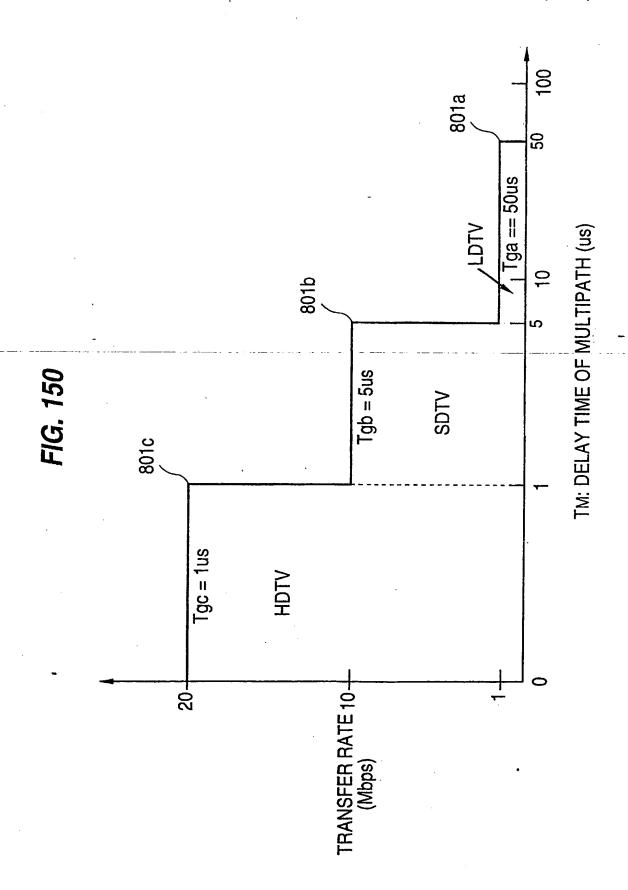


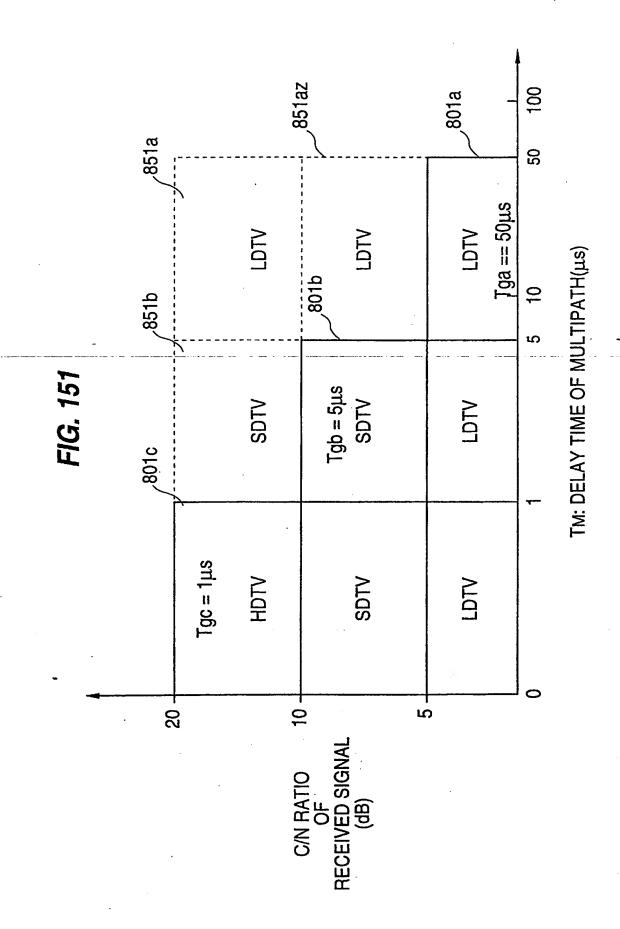












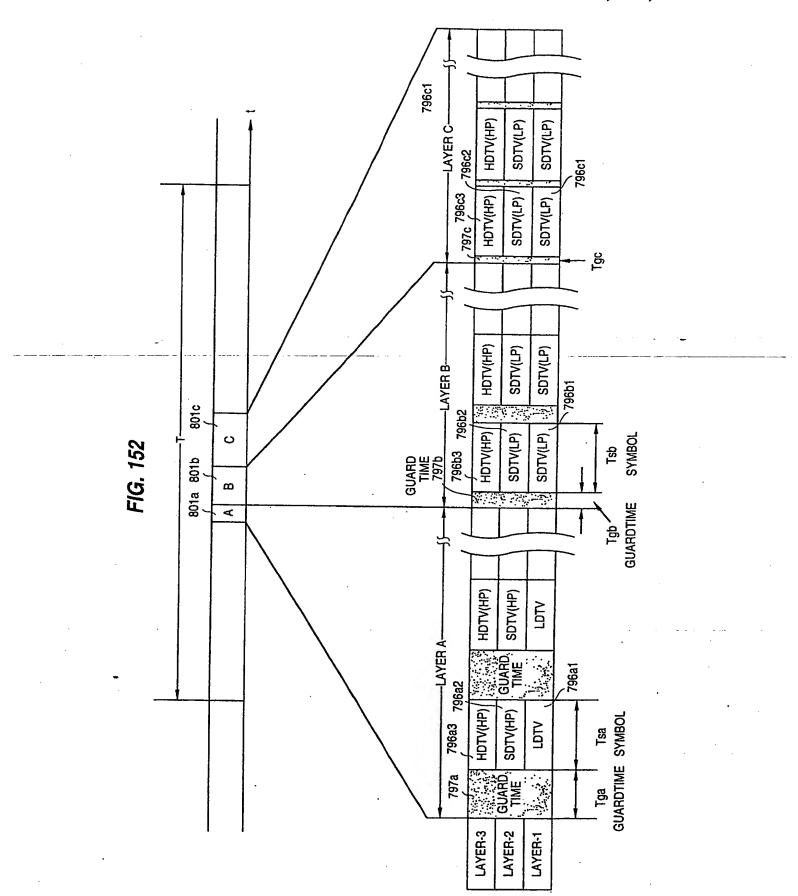
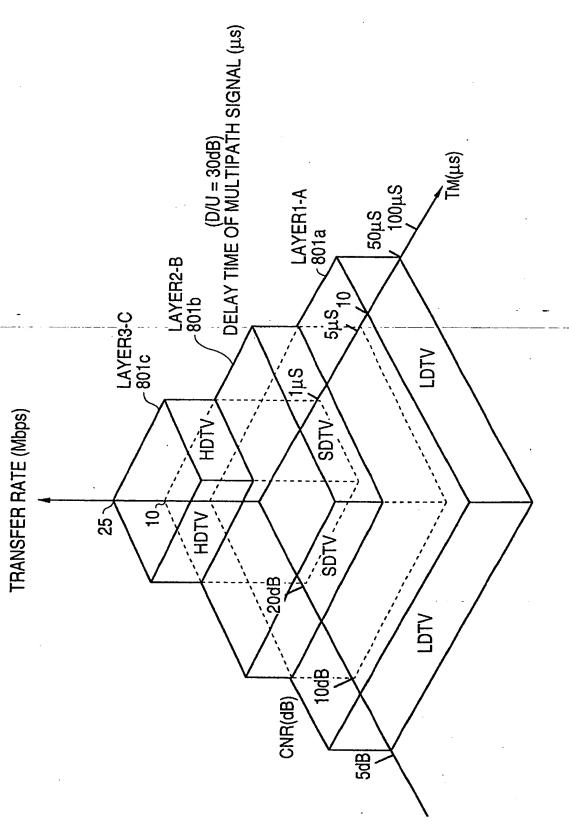
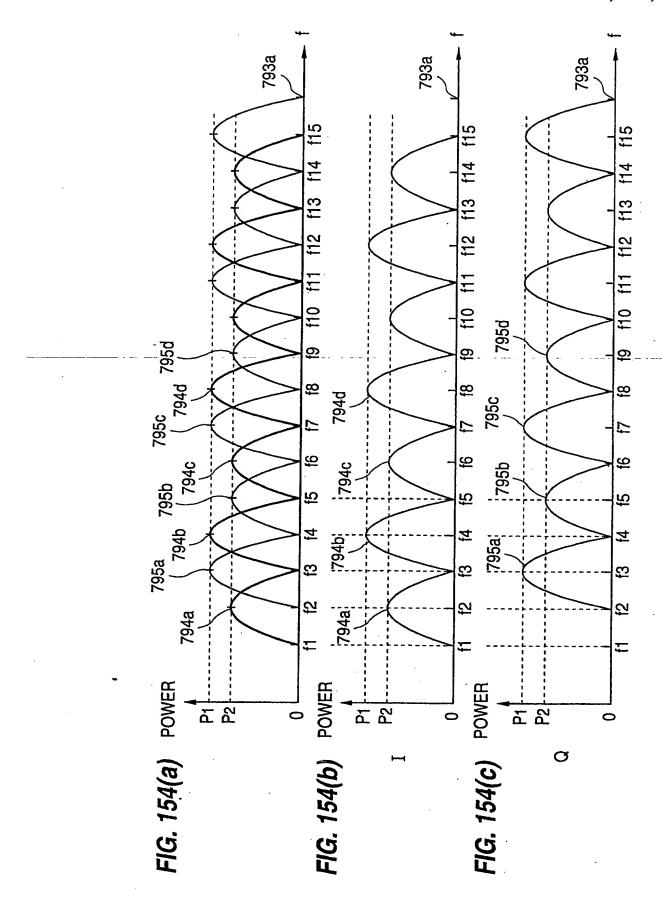
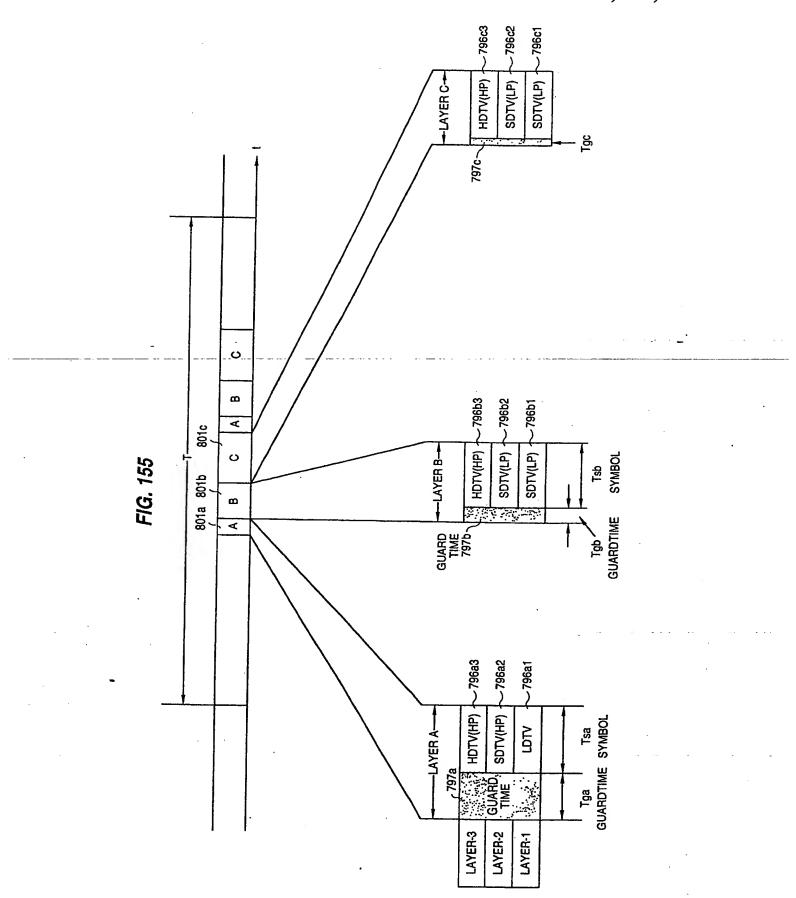


FIG. 153

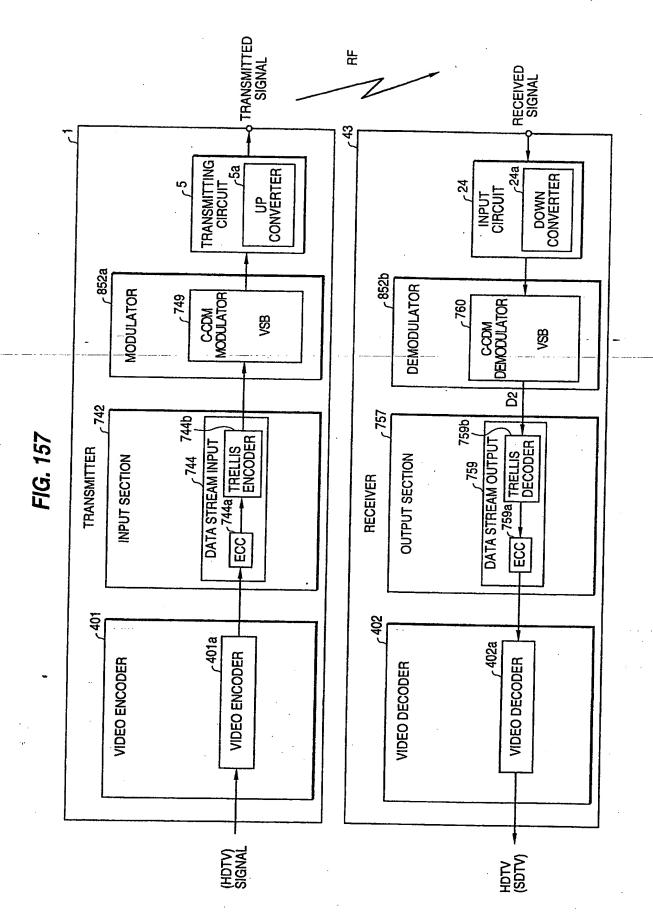




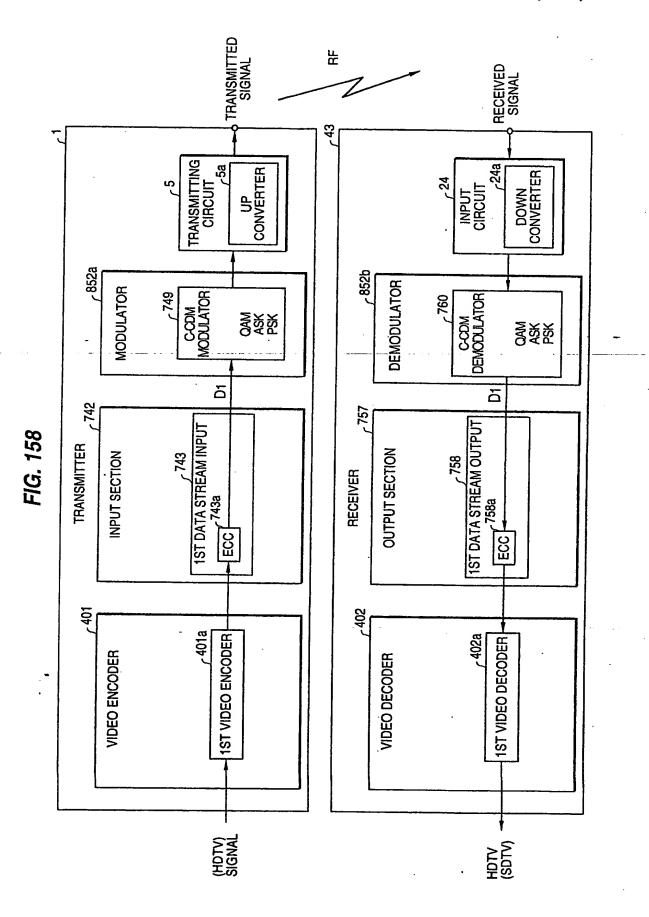


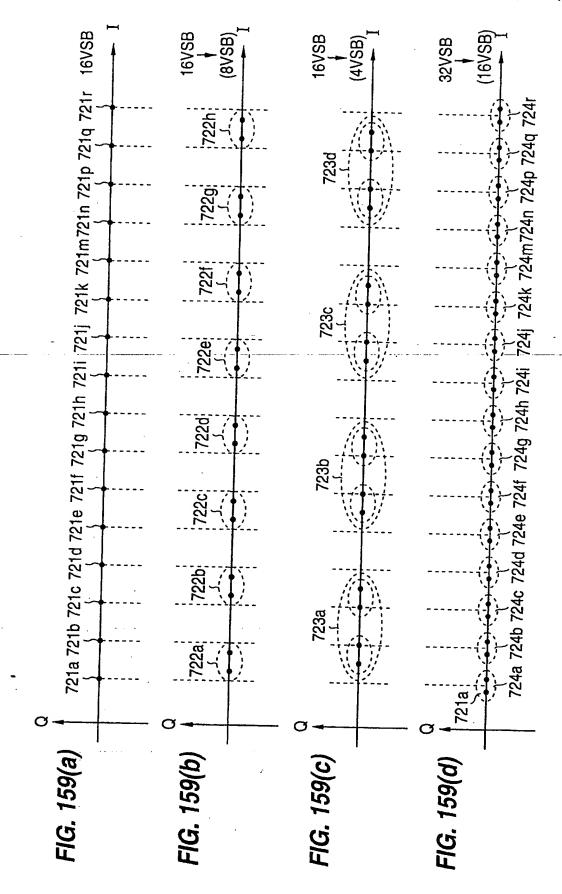
, TRANSMITTED SIGNAL 품 RECEIVED SIGNAL TRANSMITTING CIRCUIT UP CONVERTER DOWN INPUT DEMODULATOR MODULATOR demodulator modulator VSB QAM PSK VSB QAM PSK 743 12 75g 22 758 20 5 742 2ND DATA STREAM OUTPUT 1ST DATA STREAM OUTPUT 2ND DATA STREAM INPUT **1ST DATA STREAM INPUT** 759a TRELLIS ENCODER TRANSMITTER **OUTPUT SECTION** INPUT SECTION RECEIVER 758a ပ္သ 8 553 ECC 401a 401b 2ND VIDEO ENCODER 1ST VIDEO ENCODER 1ST VIDEO DECODER 2ND VIDEO DECODER VIDEO ENCODER VIDEO DECODER (HDTV) SIGNAL VTOH (SDTV)

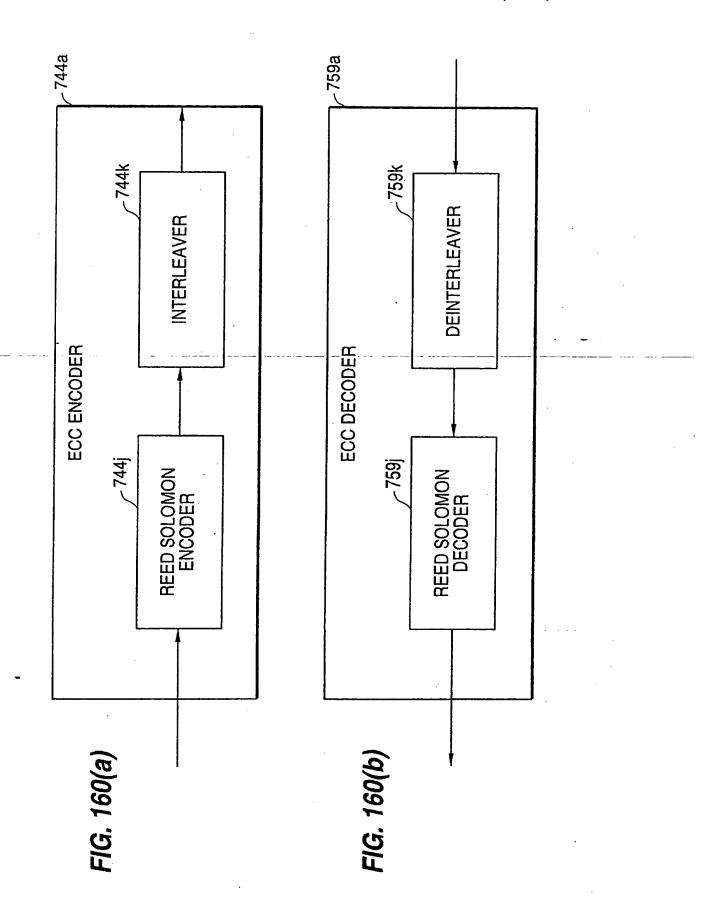
Feb. 4, 1997

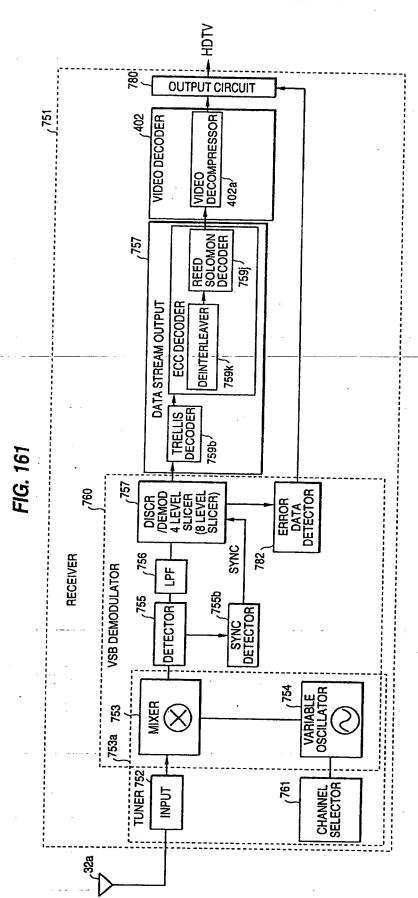


Feb. 4, 1997









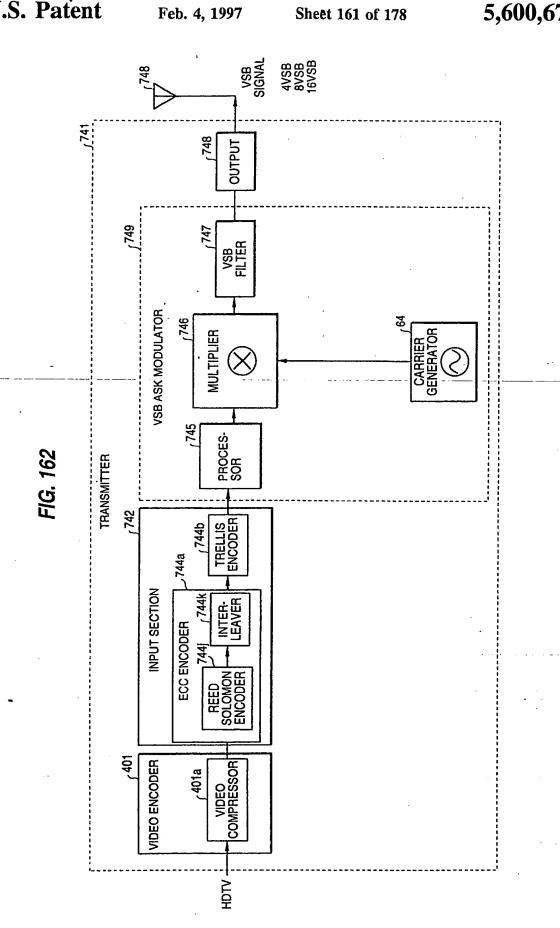


FIG. 163

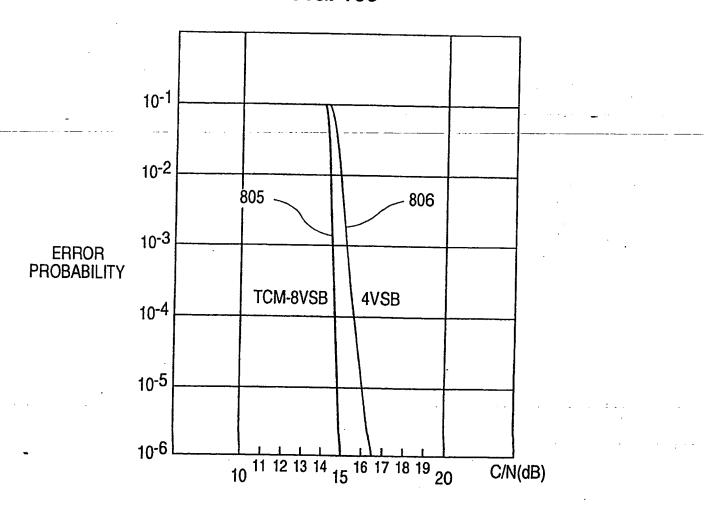
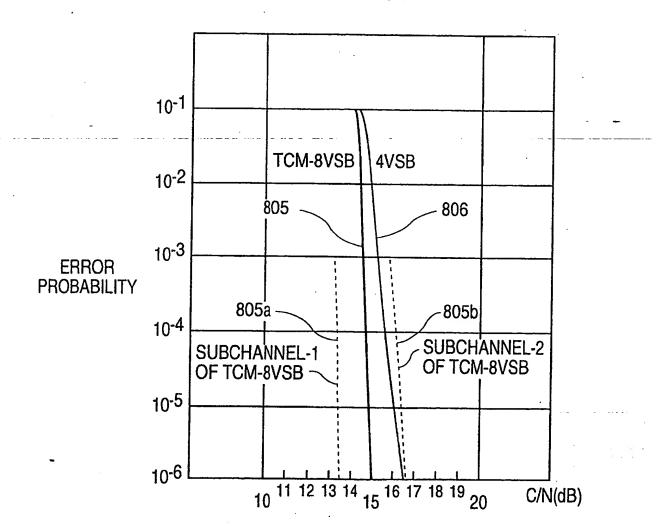


FIG. 164



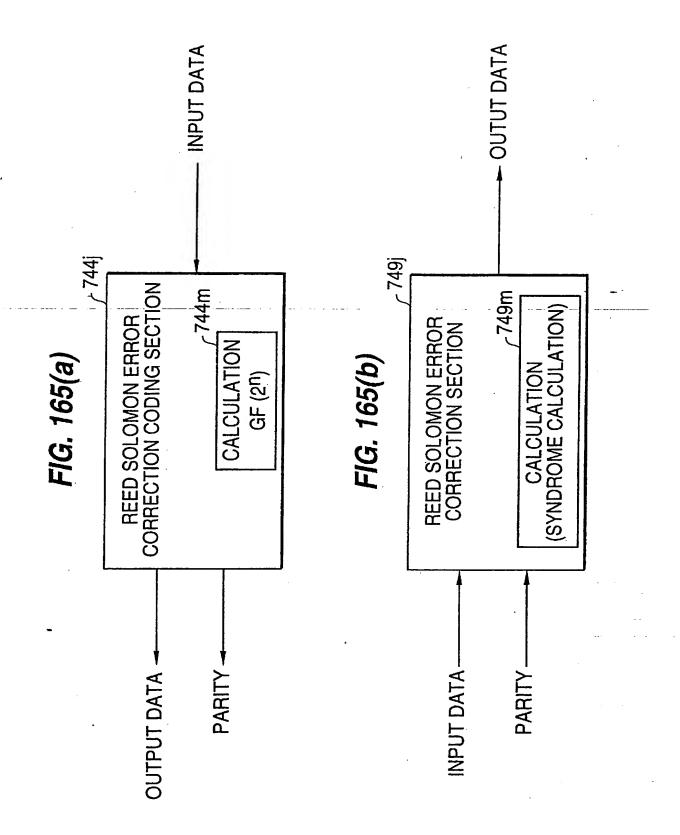
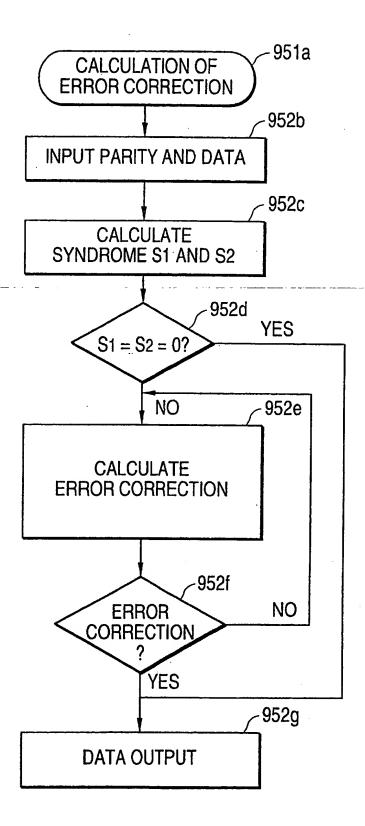
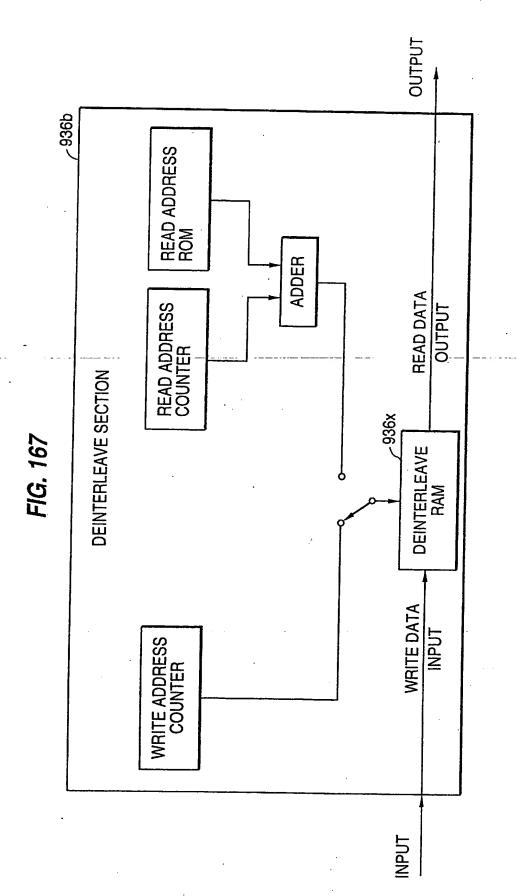
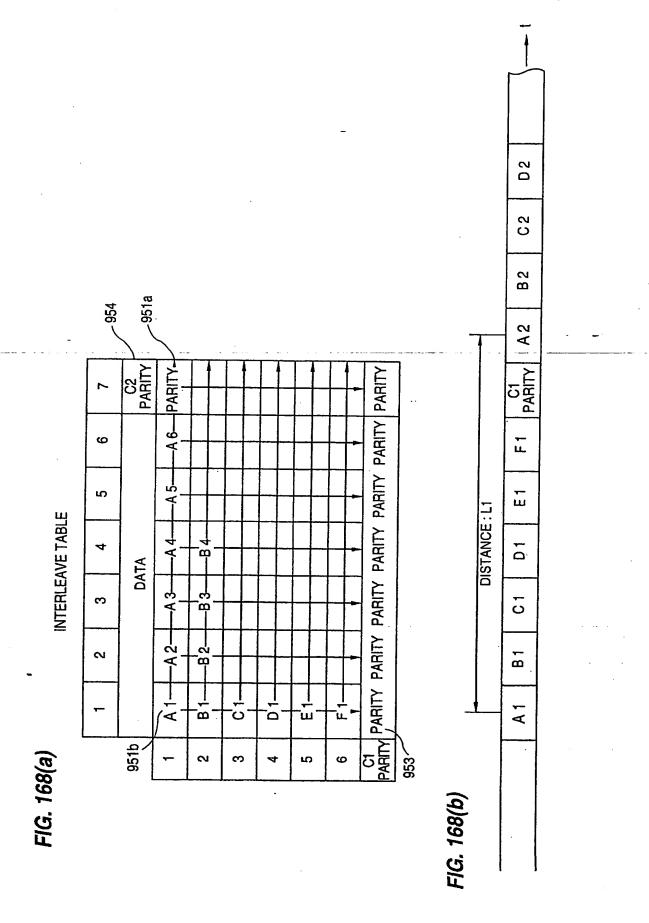


FIG. 166



Feb. 4, 1997





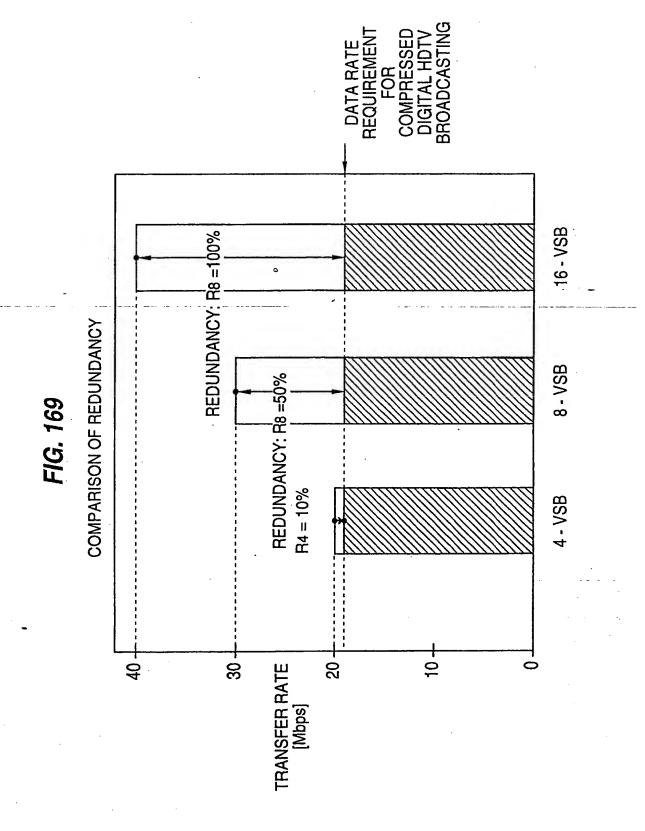


FIG. 170

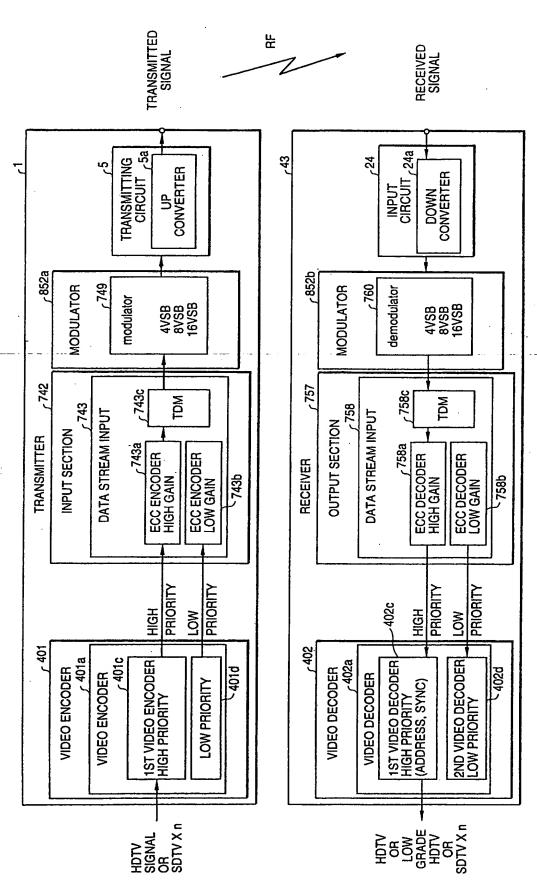
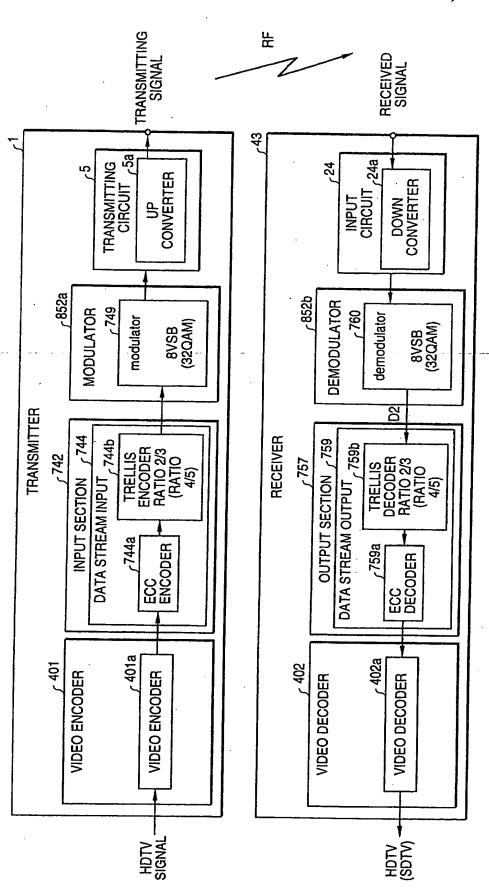
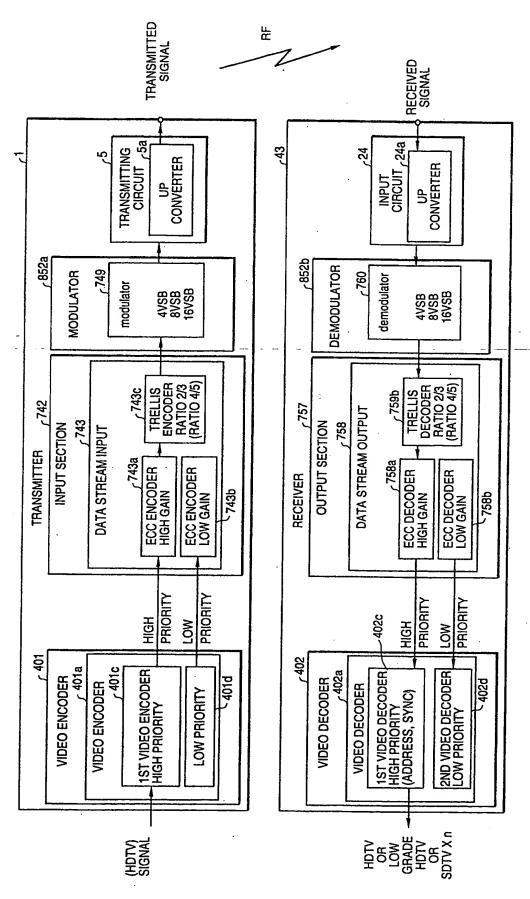
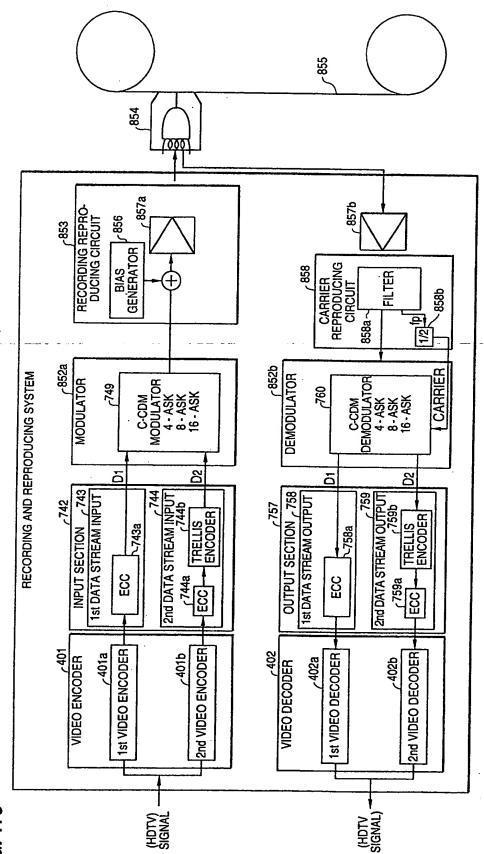


FIG. 171

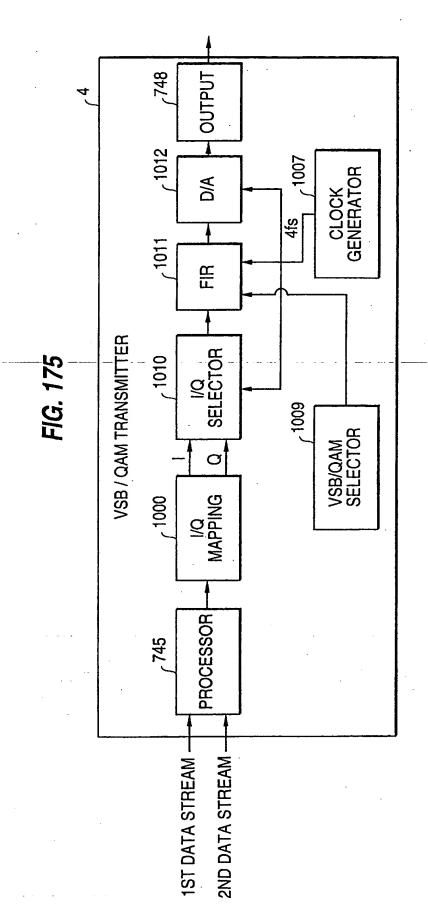


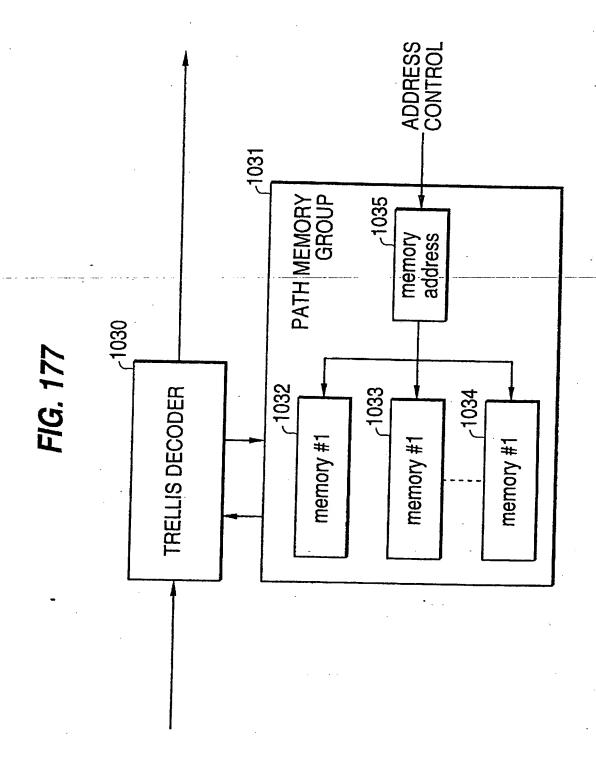


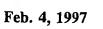


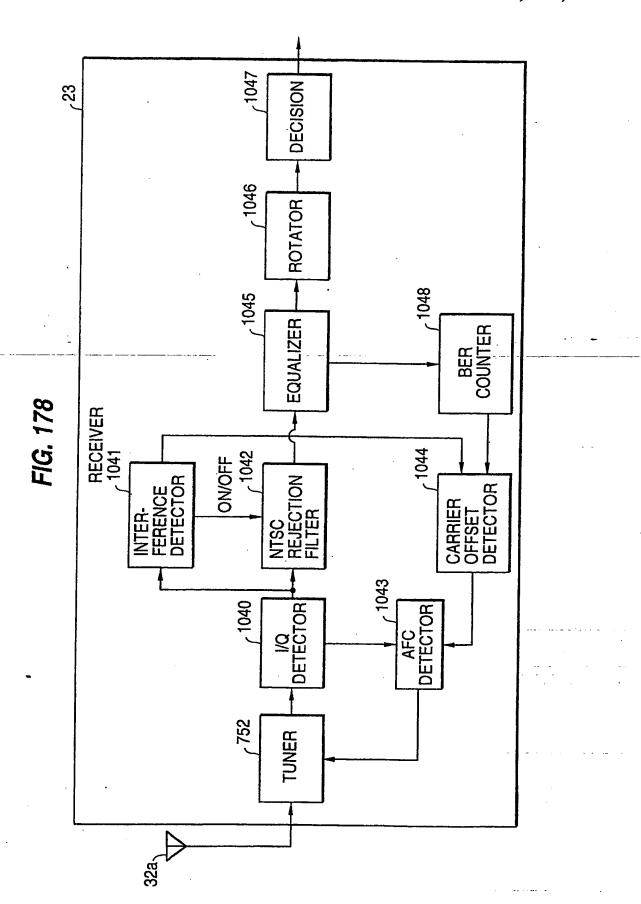


VSB OR QAM SIGNAL DC OFFSET D/A CLOCK GENERATOR 1003 DC OFFSET DC: OFFSET VSB / QAM TRANSMITTER 1008 COEFFICIENT VALUE 1001 2fs 딾 FIG. 174 I/Q Mapping 1000 VSB/QAM SELECTOR **PROCESSOR** INPUT , 743 **1ST DATA STREAM** 2ND DATA STREAM 7447









DECISION AFC DET CARRIER C/N DETECTOR RS DECODER EQUALIZER CLOCK REPRODUCER 71064 1057 ROLL OFF FILTER VSB/QAM RECEIVER QAM DETECTOR 71056 GATE SIGNAL 16VSB AFC CLOCK 1055 8 1069 1053 GATE SIGNAL GENERATOR CONVERTER VSB det BW / 6MHz SAW TUNER

-1G. 179